AD/ELECT/1 Relay - Leach - Modification 2/98

CANCELLED.

Background: No longer required.

AD/ELECT/2 Ignition Switches - Briggs and Stratton - Inspection 10/69

CANCELLED.

AD/ELECT/3 Circuit Breakers - Inspection 2/86

CANCELLED.

Background: Experience with circuit breaker testing has revealed that the testing has proved to be overly conservative, does not improve reliability of breakers and may introduce other faults in aircraft wiring. Moreover, wiring and circuit breaker reliability is such that incidents due to circuit breakers failing to operate under overload conditions and causing wiring damage/smoke/fire are “Extremely Improbable”. There is some evidence to suggest that circuit breakers should be manually (where possible) operated periodically; however, the evidence does not justify requiring periodic operation.

Future requirements for testing will be restricted to specific breaker types shown to be or suspected of being unreliable.

AIRWORTHINESS DIRECTIVE

On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive AD/ELECT/4.

Electrical Equipment

AD/ELECT/4 Magnetos BTH - Earthing Modification 2/2009

Requirement: CANCELLED.

This AD is cancelled on 12 February 2009.

Background: This unique Australian AD raised prior to 1964 required a modification to Magnetos BTH AG4, SG4 and MC1 types with contact breaker covers to ensure positive connection of the magneto switch lead to the magneto earthing spring and bush assembly.

Compliance was before installation in an aircraft.

As all affected batteries would have been modified by now, this AD is considered to be no longer required.

James Coyne
Delegate of the Civil Aviation Safety Authority

23 December 2008

AIRWORTHINESS DIRECTIVE

On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive AD/ELECT/5.

Electrical Equipment

AD/ELECT/5 Magneto - Impulse Starters - Modification 2/2009

Requirement: CANCELLED.

This AD is cancelled on 12 February 2009.

Background: This unique Australian AD raised prior to 1964 against DH Mod. G2242, Part 3; or ANO 107.2.16.2.4, requiring a modification to Magneto impulse starters BTH type Z1-2 fitted with pawls P/No. CX55288.

Compliance was before installation in an aircraft.

As all affected magnetos would have been modified by now, this AD is considered to be no longer required.

James Coyne
Delegate of the Civil Aviation Safety Authority

23 December 2008

AIRWORTHINESS DIRECTIVE

On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive AD/ELECT/6.

Electrical Equipment

AD/ELECT/6 Magneto - BTH - Contact Breakers Assembly - Modification 2/2009

Requirement: CANCELLED.

This AD is cancelled on 12 February 2009.

Background: This unique Australian AD raised prior to 1964 required a modification to all BTH type AG4, SG4 and MC1 magnetos fitted with contact breakers having an automatic earthing device by replacing with contact breakers that do not have this provision.

Compliance was before installation in an aircraft.

As all affected magnetos would have been modified by now, this AD is considered to be no longer required.

James Coyne
Delegate of the Civil Aviation Safety Authority

23 December 2008

AIRWORTHINESS DIRECTIVE

On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive AD/ELECT/7.

Electrical Equipment

AD/ELECT/7 Magneto - BTH Gear - Modification 2/2009

Requirement: CANCELLED.

This AD is cancelled on 12 February 2009.

This unique Australian AD raised prior to 1964 against BTH Mod. CM 419; or ANO 107.2.16.3.4 requiring a modification to the BTH gear of all BTH type AG4 and SG4 magnetos.

Compliance was before installation in an aircraft.

As all affected magnetos would have been modified by now, this AD is considered to be no longer required.

James Coyne
Delegate of the Civil Aviation Safety Authority

23 December 2008

AD/ELECT/8 Magneto Bosch Cam Bearing - Modification 10/69

CANCELLED.

AD/ELECT/9 Magneto Bendix Scintilla - Lubrication 8/72

CANCELLED.

AD/ELECT/10 Amdt 1 — Magneto Bendix Scintilla - Lubrication and Modification — 8/72

CANCELLED.

AIRWORTHINESS DIRECTIVE

On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive (AD) AD/ELECT/11 and issues the following AD under subregulation 39.001(1) of CASR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

Electrical Equipment

AD/ELECT/11 Leach Relays - Control Terminal Insulation 2/2009 Amdt 1

Applicability: Applicability: All Leach type 5038, 5039, 5058, 5059, 5060, 5061 relays.

Requirement: Modify relays by increasing the insulation between the coil terminals and both the main contactor bar and the earthed metal yoke of the coil.

An approved method of compliance is as follows:

1. Remove the two coil terminal screw assemblies.

2. Form a piece of 3 in. x 3 in. fibrous insulating sheet of 0.015 inch minimum thickness into a hat section so that the hollow portion can fit over the existing insulated terminal strip, with the remaining portions bearing against the moulded cover and the metal yoke respectively, so as to provide an equal overhang of Insulation at each end of the terminal strip. Cut a suitable hole to permit the passage of the coil end wires through the new insulation and cut appropriate holes in the hat section to correspond with the existing holes in the terminal strip. Varnish the formed strip.

3. Place the completed hat section in position and pass the coil wires through the appropriate hole. Replace the coil terminal assemblies at the same time connecting up the coil wires and clamping the new insulation firmly in place on each side of the terminal strip.

Note: Compliance with previous issue of this AD constitutes compliance with this AD.

Compliance: Before installation in an aircraft.

This Amendment becomes effective on 12 February 2009.

Electrical Equipment

AD/ELECT/11 Amdt 1 (continued)

Background: This AD was originally issued on 1 January 1963 and is now amended to remove reference to ANO 107.2.6.2.1 which has since been cancelled.

James Coyne
Delegate of the Civil Aviation Safety Authority

22 December 2008

AIRWORTHINESS DIRECTIVE

On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive AD/ELECT/12.

Electrical Equipment

AD/ELECT/12 Briggs and Stratton AAF Type B5 Ignition Switches - Modification 2/2009

Requirement: CANCELLED.

This AD is cancelled on 12 February 2009.

Background: This AD was probably raised in 1963 requiring removal of all Briggs and Stratton AAF Type B5 ignition switches, or in accordance with AD/GENERAL/11. As AD/GENERAL/11 was superseded by this AD, the validity of the contents of this AD was compromised.

Compliance was not entered in this AD, however, records show that compliance was originally required forthwith.

Although not entered in this AD the contents would have been applicable to the requirements of FAA AD 53-26-01, with a compliance requirement of not later than 1 April 1954.

Given the extended period this AD has been in place, this AD is considered to be no longer required.

James Coyne
Delegate of the Civil Aviation Safety Authority

23 December 2008

AD/ELECT/13 Magneto - BTH - Slow Speed Wheel - Inspection 2/74 Amdt 2

Applicability: BTH Type AG4.

Requirement: Thoroughly inspect the teeth of the CX133241/1 Slow Speed Wheel for cracks or damage using at least a X5 magnifying glass. Remove from service any defective Slow Speed Wheels.

Compliance: Before installation in an aircraft following each reconditioning completed after 28 February 1974.

AD/ELECT/14 Magneto Bendix Scintilla - Inspection NK

CANCELLED.

AIRWORTHINESS DIRECTIVE

On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive AD/ELECT/15.

Electrical Equipment

AD/ELECT/15 Engine Starter - Bendix - Modification 2/2009

Requirement: CANCELLED.

This AD is cancelled on 12 February 2009.

Background: This unique Australian AD raised in 1964 required all Bendix starters type 756 fitted to aircraft where the starter is necessary for propeller unfeathering and to be modified by replacing all planetary pinions P/N 46916 with pinions P/N 644718, and identifying with a "P" painted in red adjacent to the starter nameplate.

Compliance was before 31 March 1965.

As all affected aircraft would have been modified by now, this AD is considered to be no longer required.

James Coyne
Delegate of the Civil Aviation Safety Authority

23 December 2008

AIRWORTHINESS DIRECTIVE

On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive AD/ELECT/16.

Electrical Equipment

AD/ELECT/16 Magneto - Bendix Scintilla Distributor Gear - Inspection 2/2009

Requirement: CANCELLED.

This AD is cancelled on 12 February 2009.

Background: This unique Australian AD raised in 1966 against Bendix Scintilla Service Bulletin (SB) No. 510 required all S600 series Bendix Scintilla magnetos fitted with distributor gears P/N 10-357060 or 10-357060A to be inspected until modified by incorporation of gears P/N 10-357060B.

Compliance was at intervals not exceeding 100 hours TIS until incorporation of gears P/N 10-357060B.

As all affected aircraft would have been inspected and modified by now, this AD is considered to be no longer required.

James Coyne
Delegate of the Civil Aviation Safety Authority

23 December 2008

AD/ELECT/17 Magneto Bendix Scintilla Distributor Block - Inspection NK

CANCELLED.

AIRWORTHINESS DIRECTIVE

On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive AD/ELECT/18 Amdt 3.

Electrical Equipment

AD/ELECT/18 Amdt 3 — Slick 4000/4100 Series Sealed Non-Repairable Magnetos - Retirement Life — 2/2009

Requirement: CANCELLED.

This AD is cancelled on 12 February 2009.

Background: This unique Australian AD raised in 1966 against Slick Service Bulletin (SB) No. 2-80B required all Slick 4000/4100 series sealed, non-repairable, magnetos to be retired from service due to the possibility of these magnetos being run beyond their designed life. The AD did not apply to Slick 4200 series magnetos which can be overhauled.

Compliance was: Magnetos with greater than 700 hours TTIS within 100 hours TIS after 18 April 1991, and those Magnetos with less than 700 hours TTIS prior to exceeding 800 hours TTIS.

As all affected magnetos would have been retired by now, this AD is considered to be no longer required.

James Coyne
Delegate of the Civil Aviation Safety Authority

23 December 2008

AD/ELECT/19 Amdt 1 — Slick Magneto Impulse Coupling - Replacement — 11/70

CANCELLED.

AD/ELECT/20 Eisemann Magneto Coils P/N H27-958 - Inspection and Replacement 5/69

Applicability: All Eisemann magnetos type AM-4, AM-6, LA-4 and LA-6 installed on, but not necessarily limited to, the following engines:

Continental A-50, A-65, A-75, A-80, C-75, C-85, C-115, C-125, E-165 and E-185 series.

Franklin (Aircooled) 2A4, 4AC, 4A4, 6AC, 6AL, 6A8, 6A4, 6V4, 6AG4 series.

Menasco C4, D4, D4-87 series.

Requirement:

1. Inspect coils P/N H27-958 for a yellow inspection stamp consisting of a letter and numeral.

2. Remove from further service those coils bearing the following yellow stamps:

   A76, B76, C76, D76, F76, G76, H76, J76, K76, L76, M76, D86, E86, F86, G86, H86, J86, K86.

3. Install coils P/N H27-958 bearing yellow inspection stamps other than those listed under 2.

Compliance: Within 35 hours time in service after 16 May 1969.

AD/ELECT/21 Slick Magnetos - 447 and 600 Series 2/98 Amdt 6

CANCELLED.

Background: This AD mandates the use of the manufacturers' published Service Bulletins which are already required to be complied with as approved maintenance data.

AD/ELECT/22 Wood Electric Corp. Circuit Breakers - Inspection and Modification 2/98

CANCELLED.

Background: No longer required.

AD/ELECT/23 Nickel Cadmium Batteries with Polystyrene Cell Cases - Inspection and Replacement 1/72

Applicability: Any nickel cadmium battery, containing polystyrene cell cases, that is capable of being used to start an aircraft engine or A.P.U., except those installed in aircraft which have the battery charging automatically controlled as a function of battery temperature.

Requirement:

1. Visually inspect each battery including the cell links and cell tops for evidence of heat damage.

2. (a) Replace each cell having a polystyrene case with an equivalent cell having a nylon case; OR

2. (b) Replace any battery containing any polystyrene cell cases with a battery which is approved for aircraft use containing all nylon cells.

Compliance: For Para. 1 - Within 30 hours time in service after 28 January 1972 and thereafter at intervals not exceeding 7 days for a battery that is used for an engine or A.P.U. start, or attempted start, until replacement of the battery in accordance with para. 2.

For Para. 2 - Any battery found to have evidence of heat damage - before further flight, and for any other battery before 1 August 1972.

Note 1: Polystyrene cell cases can be identified by their clear or slight yellow plastic appearance. Marathon (Sonotone) batteries manufactured prior to 1969 (Type CA20, CA20H and CA21H) contained polystyrene cell cases. Marathon batteries manufactured in 1969 or later and those manufactured by others contain nylon cells which can be identified by their milky white or bluish appearance.

Note 2: Any battery rebuilt since new may contain a mixture of polystyrene and nylon cells.

AD/ELECT/24 Prestolite Alternator Fan - Replacement 3/94 Amdt 1

CANCELLED.

Background: Prestolite Service Bulletin ASM 8 dated 30 May 1972, which was mandated by Amendment 1 to this Directive, has been supplemented by Service Bulletin ASM 9 dated 15 December 1972. The latter Service Bulletin provides more up to date information to ensure the correct part number fan and backing plate package is used.

AD/ELECT/25 Amdt 1 — Slick Magneto Hub - Impulse Coupling Replacement — 2/98

CANCELLED.

Background: This AD previously mandated use of the manufacturers' Service Bulletins which have now been incorporated into the magneto manufacturer’s Service Manual.

AIRWORTHINESS DIRECTIVE

On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive AD/ELECT/26.

Electrical Equipment

AD/ELECT/26 Nickel Cadmium Batteries - Double D Washers - Inspection and Removal 2/2009

Requirement: CANCELLED.

This AD is cancelled on 12 February 2009.

Background: This unique Australian AD raised in 1973 required Sonotone or Marathon type CA-9 and MA-9 Nickel Cadmium Batteries to be inspected and modified to prevent the possibility of a short circuit resulting in fire or explosion due to the socket head cap screws cutting through the lid gasket.

Compliance was before commencing the next deep cycle check after 31 October 1973.

As all affected batteries would have been inspected and/or modified by now, this AD is considered to be no longer required.

James Coyne
Delegate of the Civil Aviation Safety Authority

23 December 2008

AD/ELECT/27 Amdt 6 — Bendix Impulse Coupling - Flyweight Clearance Inspection — 2/98

CANCELLED.

Background: Now addressed by AD/ELECT/68.

AD/ELECT/28 Prestolite Alternator SRE Bearing Inspection 9/79 Amdt 3

Applicability: Prestolite ALV-9400 to ALV-9410 series gear driven alternators.

Requirement: Remove the slip ring and bearing cover by using a small sharp chisel, knife blade, or screwdriver to pry it out of the alternator slip ring head. Care must be taken not to damage the end head or bearing cover. If the bearing cover is damaged during removal it must be replaced.

Without further disassembly visually inspect the bearing and shaft end for discoloration or any sign of overheating or wear. Pay particular attention to the bearing inner and outer race.

If there is any sign of overheating or an indication that the rotor shaft has been turning in the inner race or the outer race turning in the end head, the alternator must be removed and repaired.

If the rotor shaft has been turning in the bearing inner race, the rotor and bearing must be replaced. If the bearing outer race has been turning in the end head, the bearing and end head must be replaced.

Check the bearing grease for any sign of overheating or contamination such as dirt, or metal filings. If the grease is a dark brown or black colour, or is so contaminated, the alternator must be removed and the bearing replaced.

If the bearing shows no sign of discoloration, overheating, wear or contamination the bearing only (not the entire cavity) should be regreased with Caltex RPM Grease SRI-2 only.

Note. The following SBs refer to this inspection: Prestolite ASMIO, Rolls Royce T-324, Continental TCM M75-30 and FAA AD 76-02-07.

Compliance: Within 100 hours time in service after 30 July 1976 and thereafter at intervals not exceeding 100 hours time in service or 500 hours time in service for alternators modified as per Rex Aviation Modification RA-C-1541.

AD/ELECT/29 Superseded 5/78

Superseded by AD/ELECT/33.

AD/ELECT/30 Bendix Magneto Coil Retainer Plug Inspection 2/98 Amdt 2

CANCELLED.

Background: This AD previously mandated use of the manufacturers' Service Bulletins which have now been incorporated into the magneto manufacturer’s Service Manual.

AD/ELECT/31 Bendix Magneto Capacitor Malfunction Inspection 2/98

CANCELLED.

Background: This AD previously mandated use of the manufacturers' Service Bulletins which have now been incorporated into the magneto manufacturer’s Service Manual.

AD/ELECT/32 Superseded 3/80 Amdt 1

Superseded by AD/ELECT/35 Amdt 1.

AD/ELECT/33 Bendix Magneto Rear Bearing Overheating Inspection 2/98

CANCELLED.

Background: This AD previously mandated use of the manufacturers' Service Bulletins which have now been incorporated into the magneto manufacturer’s Service Manual.

AD/ELECT/34 Bendix D2000/D2200 Series Magnetos Using Green Distributor Blocks - Inspection and Replacement 2/98

CANCELLED.

Background: This AD previously mandated use of the manufacturers' Service Bulletins which have now been incorporated into the magneto manufacturer's Service Manual.

AD/ELECT/35 Amdt 1 — Bendix Magneto - Housing Distortion - Inspection and Modification — 2/98

CANCELLED.

Background: This AD previously mandated use of the manufacturers' Service Bulletins which have now been incorporated into the magneto manufacturer’s Service Manual.

AD/ELECT/36 Slick Magneto Impulse Coupling - Inspection 2/98

CANCELLED.

Background: This AD previously mandated use of the manufacturers' Service Bulletins which have now been incorporated into the magneto manufacturer’s Service Manual.

AD/ELECT/37 Amdt 2 — JET Electronics and Technology Inc. Standby Power Supply - Modification — 12/85

Applicability: All J.E.T. PS-823 Models.

Requirement: If the modification number listed below has been marked off then no further action is required in this part.

JET Part No	Model	Modification No
501-1075-01	PS-823A	18
501-1975-02	PS-823B	17
501-1075-03	PS-823C	15
501-1075-04	PS-823D	14
501-1075-05	PS-823A/T	21
501-1075-06	PS-823B/T	19
501-1075-07	PS-823C/T	17
501-1075-07	PS-823D/T	16

If the applicable modification number has not been marked off, install modifications in accordance with JET SB No. SB501-1075-16F.

Compliance: Within 100 hours time in service after 28 February 1981.

Background: Part 2 of this Directive is cancelled following reassessment after discussion with manufacturer, JET, who advised of factors not available at time of issue of Amendment 1.

AD/ELECT/38 Bendix Distributor Gear Electrode - Inspection/Replacement 8/81

Applicability: All D-3200 Series pressurised (blue) magnetos with S/Nos. 100 thru 1422 installed on Avco Lycoming TIO-540-J2BD used on Piper PA31-350 and LTIO-540-J2BD used on STC SA1151SO and STC SA970SO Colemill conversion of PA31, PA31-325 and PA31-350; STC 980NW Machen Industries conversion of Piper Aerostar 600; STC SA762 NW Machen Industries conversion of Beechcraft Bonanza B35 and A36 series.

Document: Bendix SB No. 618.

Note: FAA AD 81-12-06.

Compliance: Within 100 hours time in service after 31 August 1981 and thereafter at intervals not exceeding 100 hours time in service if gears pass inspection and are not replaced by serviceable gears.

Background: The distributor gear electrode has come loose in service on a number of D-3200 series magnetos overseas. If this condition exists the distributor gear electrode may contact the distributor block stationary electrodes causing contamination in the distributor. Engine misfiring could result from the subsequent arcing within the distributor. This in turn could result in rough engine operation, cylinder or engine damage.

AD/ELECT/39 Bendix Starting Vibrator - Inspection and Modification 11/81

Applicability: All starting vibrators with P/Nos. 10-176485-121, 10-176485-122, 10-176485-241, 10-176485-242, 10-382780-12 and 10-38270-24 having a manufacturing date of 901 thru 101, or 8010 thru 8101 permanently stamped on the vibrator. These vibrators are installed in but not limited to the following aircraft powered by reciprocating engines:

Bell (Textron)	Model 47 series helicopters
Brantley (Hynes)	Model B2 series helicopters
Enstrom	Model F28, F28A, F28F, 280, 280F helicopters.
	Model F28C and 280C helicopters equipped with Lycoming H10-360-E1BD engines.
Hughes (Summa Corp)	Model 269 series helicopters
Hiller (Fairchild Industries)	Model UH12 series helicopters
Robinson	Model R-22 series helicopters.

Document: Bendix SB No. 614. FAA AD 81-17-01 refers.

Compliance: Within 100 hours time in service after 30 November 1981.

Background: The manufacturer has determined that the combination connector lock tab-plate tolerance of some vibrators may have caused the detachment of the connector from the plate. This detachment can cause grounding and loss of the magneto which could result in air safety being jeopardized.

AD/ELECT/40 Slick Magneto Coil 11/81

Applicability: SLICK magnetos model No. 4201, 4201R, 4216, 4216R, 4230, 4230R, 4250, 4250R, 4251, 4251R, 4252, 4252R, 4281, 4281R, 6210, 6210R, 6214 and 6214R.

The Serial Number range of these magnetos includes:

8100000-8109999	October, 1978
8110000-8119999	November, 1978
8120000-8129999	December, 1978
9010000-9019999	January, 1979
9020000-9029999	February, 1979
9030000-9039999	March, 1979
9040000-9049999	April, 1979
9050000-9059999	May, 1979
9060000-9069999	June, 1979
9070000-9079999	July, 1979
9080000-9089999	August, 1979
9090000-9099999	September, 1979
9100000-9109999	October, 1979
9110000-9119999	November, 1979
9120000-9129999	December, 1979
0010000-0019999	January, 1980
0020000-0029999	February, 1980
0030000-0039999	March, 1980
0040000-0049999	April, 1980

The above magneto models are installed on, but not limited to the following engines:

Teledyne Continental

A-65	C-90	O-470
A-75	O-200	IO-470
C-75	IO-360	IO-520
C-85	TSIO-360	TSIO-520

Lycoming

0-235-H2C	0-320-E1J	0-360-C1E
0-235-K2C	0-320-E2D	0-360-C1F
0-235-L2C	0-320-E2G	0-360-C2E
0-320-A2D	0-320-E3D	0-360-F1A6
0-320-D1D	AEI0-320-E1B	AEI0-360-B1G6
0-320-D2G	AEI0-320-E2B	AEI0-360-H1A
0-320-D2J	0-360-A4K	
0-320-D3G	0-360-A4M	

Document: Slick SB1-81. Lycoming SB457A, Cessna SIL SE81-30 and FAA AD 81-16-05 also refer.

Compliance: Within the next 100 hours time in service after 30 November 1981.

Background: The manufacturer has indicated that a situation exists in a certain group of coils that could facilitate cracking of the coil potting compound and a subsequent shorting failure. The above group include coils which have already failed in service both in Australia and overseas.

AD/ELECT/41 Bendix Distributor Gear Electrode - Inspection/Replacement 2/98

CANCELLED.

Background: This AD previously mandated use of the manufacturers' Service Bulletins which have now been incorporated into the magneto manufacturer’s Service Manual.

AD/ELECT/42 Bendix Impulse Couplings 1/86 Amdt 1

Applicability: All Bendix Magnetos with type designations as follows:

S4LN-21/1225/1227, S4RN-21/1225/1227, S6LN-21/23/25/1225/1227, S6RN-21/23/25/1225/1227, S4LN-200 P/N 10-163005-7 D-2021/2031. All D-3000 except Bendix Blue Label Impulse Coupled Magnetos Serial Number 8236001 and above and except Bendix Red Label Impulse Coupled Magnetos with the following Serial Numbers and above:

S-20 Series B-001171 or A297043.

S-200 Series B-001732 or A297043.

S-1200 Series B-001162 or A297043.

D-2000 Series 35550.

D-3000 Series B-000249 or 5806.

Requirement: Bendix Service Bulletin No. 623 A and FAA AD 82-20-0 refer. For all affected impulse couplings having less than 300 operating hours -

1. Remove magneto from the engine in accordance with engine/aircraft manufacturers published instructions.

2. Place the magneto in a suitable work stand with the impulse coupling facing up.

3. Use finger pressure to push inward on the toe of each flyweight so that the flyweight heel protrudes outward.

4. Using a fine number 1 double cut 1/2 inch wide file at least 3/32 inch thick pass the file across the heel of the flyweight attempting to remove material. If the flyweight has been properly heat treated the file will glide smoothly over the heel of the flyweight removing no material. If the flyweight is not properly heat treated (soft) the file will not glide easily across the surface of the flyweight heel and material will be removed.

5. If an improperly heat treated (soft) flyweight is found, immediately remove and replace the cam assembly and/or the impulse coupling assembly with an assembly meeting the requirement of this AD, following procedures in the Magneto Overhaul Instructions and paying strict attention to Notes and Cautions.

6. Inspect the impulse coupling stop pins for wear and replace as necessary.

7. After flyweights have been identified, stop pins inspected, and the impulse coupling reinstalled on the magneto; if removed; identify the magneto by stamping a 1/16 inch letter F in the upper right corner of the identification plate to indicate that this AD and Bendix Service Bulletin No. 623A have been complied with.

8. Reinstall the magneto following manufacturer's published procedures.

9. Make an appropriate engine log book entry recording magneto serial number to indicate that this AD and Bendix Service Bulletin No. 623A have been complied with.

10. Inspect all spare impulse coupling assemblies, cam assemblies and magnetos following the same procedures described in Steps 3 and 4 of this Airworthiness Directive. If both flyweights are found acceptable, identify the cam assembly by applying yellow Dykem or yellow lacquer to the heel of each flyweight. Stamp F on Data plate as described in Step 7.

Note 1. The magneto should be removed from the engine only to the extent necessary to perform the inspection described herein. Depending on the engine application it may not be necessary to remove the harness from the magneto for the inspection procedure.

Note 2. All magnetos with the impulse coupling recessed into the magneto flange must have the impulse coupling removed from the magneto to perform the inspection. This is a bench operation and will require the magneto to be removed from the engine and the harness removed from the magneto.

Note 3. Whenever an impulse coupling is removed from a magneto, it must be removed following manufacturer's published procedures paying strict attention to Notes and Conditions. Follow manufacturers published procedures, cautions and torque settings upon re-assembly. The cotter pin Bendix P/N 10-90751-18 removed during disassembly must be discarded and replaced.

Note 4. FAA Emergency AD82-20-0 specifies the above checks "For impulse couplings having less than 300 operating hours". Compliance with AD/ELEC/27B should ensure detection of excessive wear in longer time components

Compliance: Within next 100 hours of engine operation after 30 November, 1982.

Background:

1 This Directive is amended to highlight the latest revision to the referenced Service Bulletin. Torque figures and procedures are revised.

2. Engine stoppage, attributed to failure of the magneto impulse coupling, has occurred in two aircraft (less than 200 hours operating time). It was found that the impulse coupling flyweights had been improperly heat treated (soft) and had worn rapidly and jammed. It is believed this damaged the engine accessory drive resulting in engine failure.

AD/ELECT/43 J.E.T. Emergency Power Supply - Inspection/Modification 3/83

Applicability: All J.E.T. power supplies. Model PS835 series.

Requirement: 1. If the installation incorporates a panel located battery test switch, install a temporary placard near the test switch which reads as follows:

"To test emerg pwr supply

1. Disregard emerg pwr sw test position.
2. A/C master/batt sw - off.
3. Emerg pwr sw - on.
4. Ck operation of accessory/instr".

2. Modify as required by JET Alert SB A-SB501-1228-7.

FAA AD 82-21-04 Amendment 39-4475 refers.

Compliance: For Para. 1 - Within 100 hours time in service after 31 March 1983.

For Para. 2 - Within 200 hours time in service after 31 March 1983.

Background: To prevent false indication that emergency power is available.

AD/ELECT/44 Amdt 1 — Slick Magnetos - Bearing Inspection and Modification — 2/87

CANCELLED.

Background: Bearing Requirements are now included in AD/ELECT/46.

AIRWORTHINESS DIRECTIVE

On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive AD/ELECT/45.

Electrical Equipment

AD/ELECT/45 — Aircraft Batteries - Exide Type 6AC9 and 6AC11 — 2/2009

Requirement: CANCELLED.

This AD is cancelled on 12 February 2009.

Background: This unique Australian AD raised in 1984 required an inspection and replacement of Exide type 6AC9 and 6AC11 batteries with S/nos 32659 to 33117 following the manufacturer issuing a recall notice due problems being experienced with epoxy resin used to seal them.

Compliance was: 1. Inspect for leakage upon receipt of AD and thereafter at each Daily inspection until battery replaced; and 2. Replace battery upon detecting a cracked battery or within 50 hours TIS after 30 June 1984 if battery found serviceable after compliance with Para. 1.

As all affected batteries would have been replaced by now, this AD is considered to be no longer required.

James Coyne
Delegate of the Civil Aviation Safety Authority

23 December 2008

AD/ELECT/46 Slick Magnetos 2/98 Amdt 6

CANCELLED.

Background: This AD previously mandated use of the manufacturers' Service Bulletins which have now been incorporated into the magneto manufacturer’s Service Manual.

AIRWORTHINESS DIRECTIVE

On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive AD/ELECT/47.

Electrical Equipment

AD/ELECT/47 Propeller De-Ice Terminal Clamp Assembly 2/2009

Requirement: CANCELLED.

This AD is cancelled on 12 February 2009.

Background: This unique Australian AD raised in1986 against B.F. Goodrich Service Bulletin (SB) No. E-85-71 required an inspection for cracks of the propeller de-icer terminal clamp assembly P/No. 3E1883-2 fitted to Hartzell HC-B3TN and HC-B4TN series propellers.

Compliance was prior to issue of the next maintenance release after 31 January 1986.

As all affected terminal clamp assemblies would have been inspected by now, this AD is considered to be no longer required.

James Coyne
Delegate of the Civil Aviation Safety Authority

23 December 2008

AD/ELECT/48 Mechanical Products Inc - Circuit Breakers 9/89 Amdt 3

Applicability: 1. Mechanical Products Inc. circuit breakers as follows:

Series Part No	Military Designator	Rating - Amps	Manufacturers Date Code
4001	MS22073	1 thru 5	8501 thru 8636
4200	MS26574	0.5 thru 5	8430 thru 8636
4310-0001 and 4310-019	MS3320	1 thru 5	8605 thru 8636
8500	Nil	1 thru 5	8514 thru 8636

2. Mechanical Products Inc. circuit breakers commercialised by E.C.E. Co. as follows:

Mechanical Products Series P/N	Equivalent ECE Reference No	Rating - Amps	Manufacturers Date Code
4001-001-( )	120DU01###	1 thru 5	8501 thru 8636
4001-004-( )	124DU01###	1 thru 5	8501 thru 8636
4001-007-( )	125DU01###	1 thru 5	8501 thru 8636
4310-001-( )	170/171DU01###	1 thru 5	8605 thru 8636

Note 1. ( ) may be any digit in the range 1 thru 5. # may be any three digits in the range 010 thru 050.

Note 2. The first two digits of the date code are the year of manufacture and the second two digits are the week in that year.

Note 3. All the above circuit breakers may be identified by their blue or black base colour. Mechanical Products circuit breakers commercialised by ECE have an ECE reference number on the body of the circuit breaker.

Note 4. This Directive does not apply to circuit breakers produced or installed prior to 23 July 1984, (the thirtieth week of 1984), or to circuit breakers which have been inspected by the manufacturer, found free of defect, marked with a white inverted Z or a T painted on the terminal end, and have an additional date code with an "R" prefix.

As an example the unit may have the additional date code of R8642, where "R" designates a retest by Mechanical Products.

Note 5. Aircraft which may be fitted with circuit breakers commercialised by E.C.E. Co. include but are not limited to Aerospatiale SA 330 helicopters.

Note 6. FAA AD 87-06-09 and DGAC AD 87-073-IMP(AB)RI refer.

Requirement: Remove from service circuit breakers which fall within the area designated in the applicability statement. Some approved alternate Part No's are as follows:

Mechanical Products Inc	**Equivalent Part Numbers**	
Suspect Part Numbers	**Klixon**	**Mechanical Products Inc**
8500-005-1	7274-55-1	8500-002-1
8500-005-105	7274-55-1 1/2	8500-002-105
8500-005-2	7274-55-2	8500-002-2
8500-005-3	7274-55-3	8500-002-3
8500-005-5	7274-55-5	8500-002-5

Compliance: For Mechanical Products Inc circuit breakers; within 100 hours time in service after 31 May 1987.

For Mechanical Products Inc circuit breakers commercialised by E.C.E Co; within 100 hours time in service after 10 August 1989.

Background:

1. Mechanical Products Inc. have advised that a quantity of circuit breakers have been shipped which may be improperly manufactured. An internal contact carrier may rotate within these units which may create an electrical shock hazard or cause the circuit breaker to not fulfil its protection function.

2 Amendment 2 to this Directive is issued to include Mechanical Products Inc. circuit breakers commercialised by E.C.E. Co.

3. Amendment 3 to this AD is issued to:

- clarify the applicable series of ECE commercialised circuit breakers;
- provide additional information to aid in identifying ECE commercialised circuit breakers;
- revise the compliance date for ECE commercialised circuit breakers; and
- clarify which Mechanical Products circuit breakers in the 4310 series are affected.

AD/ELECT/49 Bendix Magneto Distributor Block 8/95

CANCELLED.

Background: Teledyne Continental Ignition Systems advise that the requirements detailed in Bendix Engine Products Division Service Bulletin No 629 have been incorporated in the applicable magneto service support manuals.

AIRWORTHINESS DIRECTIVE

On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive AD/ELECT/50.

Electrical Equipment

AD/ELECT/50 Rebling Nickel Cadmium Battery Quick Disconnect Receptacles 4/2008 DM

Requirement: CANCELLED.

This AD is cancelled on 11 February 2008.

Background: This unique Australian airworthiness directive was based on a Special Technical Instruction issued by the Royal Australian Air Force in 1987 rather that a State of design airworthiness directive. As all aircraft would now be modified, the unsafe condition no longer exists.

David Punshon
Delegate of the Civil Aviation Safety Authority

8 February 2008

AD/ELECT/51 SAFT 40AH Type 40976 Batteries 10/88 Amdt 1

Applicability: All SAFT 40 AH Type 40976 batteries P/No 18585 fitted to aircraft or held as spares.

Note: Aircraft types which may be fitted with this battery include but are not limited to Cessna 650.

Requirement: Action in accordance with SAFT SB 0005. FAA Telex AD T85-03-51 also refers.

Compliance: 1. For batteries installed in aircraft, before further flight after 20 October 1988.

2. For uninstalled batteries, before installation in an aircraft.

Background: Inspection of SAFT 40 AH Type 40976 batteries has revealed that the battery cell terminals can penetrate the rubber insulation under the lid and short circuit to ground thus potentially resulting in fire and/or loss of battery power. Amendment 1 to this Directive is issued to clarify the Compliance date.

AD/ELECT/52 Bruce Industries Fluorescent Lamp Ballast 1/89

Applicability: All Bruce Industries Inc. fluorescent lamp ballasts P/No 05241-1. Aircraft which may be fitted with these ballasts include, but are not limited to Boeing 727 aircraft, and aircraft modified in accordance with Supplemental Type Certificate (STC) numbers SA 1081 NW SA 1315 NM, SA 1952 NM, SA 4042 WE, and UK Civil Aviation Authority Airworthiness Approval Note No 17027 Issue 2.

Note: FAA AD 88-11-08 also refers.

Requirement: Install new fuse in power line in accordance with Bruce Industries Inc. ASB A05241-33-20-01.

Note: Hitco ASB A9000203-33-20-01 is considered an approved equivalent modification.

Compliance: Prior to 26 February 1989.

Background: Instances have occurred where the fuse and thermal protector currently provided within the ballast have failed to protect the ballast from failure. This has resulted in the emission of smoke and flames from the ballast.

AD/ELECT/53 Amdt 2 Bendix Magneto Clear Case Coils 12/94

CANCELLED.

Background: The actions required by this Directive are now addressed in AD/ELECT/66.

AD/ELECT/54 Sealed Lead Acid Aircraft Batteries 7/90

Applicability: All installed Gates Varley/Tungstone Energy Products/Hawker Energy Products sealed lead acid batteries listed below:

18 AH batteries with the following product numbers:	25 AH batteries with the following product numbers:
9750-0730, 9750-0734, 9750-0738,	9750-0640, 9750-0650,
9750-0740, 9750-0742, 9750-0744,	9750-0658, 9750-0660
9750-0772.	9750-0750, 9750-0781.

Note 1. Aircraft known to have batteries of this type fitted include but are not limited to BAe 125 Series; Shorts Skyvan Series; and BAe. Jetstream series.

Note 2. Gates Varley SB M1-89 Issue 2 (made mandatory by CAA (UK) also refers.

Requirement: Remove from the aircraft and carry out a capacity test in accordance with the aircraft maintenance manual or other approved procedure.

Compliance:

1. 18 AH batteries in the serial number range A1810 to A7637, and 25 AH batteries in the serial number range B0095 to CO 575 - initially 6 months after initial installation in an aircraft, and thereafter at intervals not exceeding 3 months.

2. 18 AH batteries with serial numbers below A1810 and above A7637, and 25 AH batteries with serial numbers below B0095 and above CO 575 - initially 6 months after initial installation, then after a further 6 months, and thereafter at intervals not exceeding 3 months.

Background: Affected batteries have been found to exhibit an unexpected loss of capacity which reduces the time for which the battery can power emergency services in the event of a power failure.

AD/ELECT/55 Texas Instruments Circuit Breakers 8/93 Amdt 2

Applicability: Texas Instruments three phase circuit breakers models 6TC6-7.5; 6TC6-10; 6TC20-7.5 and 6TC20-10 date coded 8150 or earlier.

Note: Aircraft known to have these circuit breakers installed include, but are not limited to, aircraft manufactured by Boeing Commercial Airplanes and Lockheed Corporation.

Requirement: If not previously accomplished inspect the circuit breakers listed above to determine the date code. If the date code is 8150 or earlier, replace the circuit breaker.

Note: FAA AD 90-09-10, Boeing SBs 747-24-2135, 757-24-0054, 767-24-0060, and Lockheed SB 093-24-134 refer.

Compliance: The Compliance for the previous issue of this Directive was prior to 12 November 1990. Compliance for this issue is prior to 22 October 1993.

Background: Some aircraft have experienced inflight fires which have been attributed to overheating of Texas Instruments circuit breakers. Compliance with this AD is considered necessary to prevent potential overheating of these affected circuit breakers which could result in an onboard fire.

Amendment 1 to this Directive was issued to correct a typographical error only. Amendment 2 is issued to correct errors in the reference documentation and to clarify the requirement.

AD/ELECT/56 Cabin Fluorescent Lighting System Components 3/96 Amdt 1

Applicability:

1. Fluorescent lighting system lamp connectors P/No 3185-1A manufactured by S.E.L.A. Laboratoire Abadie,

2. Fluorescent lighting system remote power units (RPU) P/No TR992, TR992A, TR992-1, TR992-3, TR992-4 and TR992-5 manufactured by S.E.L.A. Laboratoire Abadie.

Note 1. Aircraft known to be fitted with S.E.L.A. Laboratoire Abadie fluorescent lighting systems include, but are not limited to AMD-BA Falcon 10, 20, 50, 900; BAe Jetstream 3101 and 3201; CASA 235; Embraer EMB-120; and SAAB-Scania SF340A aircraft.

Note 2. Fluorescent lighting system components manufactured by SELA and those manufactured by Aerospace Lighting Corporation (ALC), are very similar in size, shape, colour and part number, however they may be identified by trademark. The SELA RPU can be identified by a starburst pattern incorporating the text `laboratoire, abadie, France'. The ALC RPU can be identified by a stylised ALC logo with 'Aerospace Lighting Corp' in smaller print beneath the logo. The SELA lamp connector is only stamped in yellow ink. The ALC lamp connector has ALC moulded into the body of the conical piece of the connector. The ALC lamp can be positively identified by the presence of a small hole in the locking channel of each blue plastic end piece.

Requirement: Action in accordance with United States Federal Aviation Administration (FAA) AD 90-07-08 Revision 1. Operators of affected aircraft who elect to comply with para a. of the FAA AD, are required to have an Australian Flight Manual amendment specifying the required action. In lieu of inserting a copy of the FAA AD in the Flight Manual, operators intending to take this course of action must prepare and submit a suitable flight manual amendment to their local Civil Aviation Safety Authority (CASA) District Office for approval.

Note 1. If any fluorescent lighting components referred to in the Applicability Statement are found to be installed in any emergency lighting system or any escape path lighting system the correct operation of which is a mandatory certification requirement for that aircraft, then the disabling of such a system in accordance with an FAA AD is NOT permitted.

Note 2. FAA AD 90-07-08 R1 may be viewed at local CASA District Airworthiness Offices or a copy may be obtained by contacting:

Airworthiness Information Unit
CASA
GPO Box 2005
CANBERRA ACT 2601
Facsimile (06) 268 5692

Note 3. The aircraft manufacturers maintenance manual, the installers maintenance manual, SELA Technical Data Sheet (TDS) Reference 90/11980 dated 9 February 1990 and Bigorre Aerospace Corporation (BAC) `How To' Number 1 Manual dated 10 May 1989 contain information which supplements the instructions contained in this AD . This information is important to proper maintenance and replacement of defective components and may be obtained as follows:

SELA Laboratoire Abadie
BP No 1 65500
Vic En Bigorre
France
Telephone (33) 62.96.71.56
Facsimile (33) 62.96.23.09.

Bigorre Aerospace Corporation
Suite 1107
6543 46th Street North
Pinellas Park FL 34665
USA
Telephone 1 813 525 8115
Facsimile 1 813 522 5820

Alternately, the documents may be viewed at the CASA Airworthiness Information Unit, Alan Woods Building, 25 Constitution Avenue, Canberra, ACT.

Compliance: The original compliance was as specified in the Requirement Document, with an effective date of 6 October 1990.

This amendment is effective from 29 February 1996.

Background: Numerous incidents of smoke and fire have been reported on aircraft using SELA and ALC fluorescent lighting system components. These incidents have been attributed to high voltage arcing or overheating of the lamp connector or remote power unit. Action in accordance with this Directive is necessary in order to prevent smoke, fire and possible electric shock or electromagnetic interference to flight critical or essential systems.

This amendment is issued following the issue of AD/ELECT/67, which addresses fluorescent lighting components manufactured by ALC. No changes other than minor editorial changes and the removal of references to ALC components in the Requirement Statement have been made in this amendment.

Electrical Equipment

AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive (AD) AD/ELECT/57 and issues the following AD under subregulation 39.1 (1) of CAR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

AD/ELECT/57 Amdt 1 — Landing Gear - Dunlop Fan and Transducer Installation — 11/2001

Applicability: Dunlop Fan and Transducer Installation Part Numbers AHA1578, AHA1684 AND AHA1685.

Note 1: Aircraft known to be fitted with these Fan and Transducer installations include but are not limited to BAe 146 aircraft.

Requirement: Replace the fan and transducer installation in accordance with Dunlop Limited Aviation Division Service Bulletin (SB) 32-1039.

Note 2: Incorporation of Modification C2640 in accordance with Dunlop Limited Aviation Division SB AHA 1684/AHA1685-32-1047 dated 19 September 1990 in BAe 146 aircraft is considered terminating action for this Directive for those aircraft.

Note 3: Compliance with this Service Bulletin has been classified mandatory by the UK CAA.

Compliance: Remains unchanged as - “Initially, prior to 28 February 1991, and thereafter at intervals not exceeding 1500 landings. Operators with positive records of both transducer drive shaft and splined drive replacement may allow these components to continue in service until they have completed 1500 landings from the last replacement.”

This Amendment becomes effective on 1 November 2001.

Background: Wear in the transducer drive splines can cause the transducer to produce false signals. These signals may be interpreted as skids by the anti skid control box, and may result in reduced braking performance or loss of braking.

This amendment introduces terminating action for BAe 146 aircraft and minor formatting amendments. The original issue of this Directive became effective on 29 November 1990.

Eugene Paul Holzapfel
Delegate of the Civil Aviation Safety Authority

13 September 2001

The above AD is notified in the *Commonwealth of Australia Gazette* on 10 October 2001.

AD/ELECT/58 SAFT 1606-1 Batteries 2/91

Applicability: All SAFT 1606-1 batteries equipped with temperature probes, and fitted to aircraft or held as spares.

Note: Aircraft known to be fitted with this type of battery include, but are not limited to Aerospatiale AS 350 and AS 355 helicopters.

Requirement: Verify the presence of the battery shunt (jumper) between terminals 2 and 3 of the female plug on the battery temperature probe cable. If the shunt is missing, install a shunt P/No 161-211 and ensure correct operation of the temperature probe system.

Note: DGAC AD 90-198-056(B) also refers.

Compliance:

1. For batteries fitted to aircraft: within 50 hours time in service after 21 February 1991.

2. For uninstalled batteries: before installation in an aircraft.

Background: Advice has been received that the temperature probe shunt may be not installed or missing on some SAFT 1606-1 batteries which may result in nil operation of the temperature sensing system, and therefore failure to detect a potentially dangerous overheated battery condition.

AD/ELECT/59 Amdt 1 — Ignition Switches — 11/93

Applicability: Ignition switches manufactured by ACS Products Company or Gerdes Products Company fitted to, but not limited to the following aircraft models:

Piper PA-38-112;

Schweizer GA-164 series and 2-37 series;

Cessna 150 series, 152 series, 172 series, 177 series, 180, 182 series, 185, U206, 207, 210 series.

Note: Serial number ranges for Cessna aircraft are identified in Cessna Service Bulletin SEB91-5 Revision 1 dated 14 June 1991.

Requirement:

1. Inspect the ignition switch for wear or corrosion and lubricate the switch in accordance with ACS Service Bulletin SB92-01 Revision A dated 21 January 1993 or for Cessna aircraft Cessna Service Bulletin SEB91-5 Revision 1 dated 14 June 1991. If corrosion or wear is detected either replace the damaged components or replace the ignition switch before further flight.

Note: This requirement does not apply to ACS ignition switches that do not have a "start" position (models A-150-1 and A-510-5) manufactured on or after 20 February 1989, that have not accumulated 2000 hours time in service. (Switches manufactured after 20 February 1989 may be identified by the presence of red paint in the screw heads on the back of the switch and by the manufacturing date stamped on the switch body.)

2. Inspect the ignition switch installation to determine if a diode or other surge suppressor is installed on the starter solenoid. If one is not installed, prior to further flight, install a starter solenoid diode in accordance with ACS Service Bulletin SB92-01 Revision A dated 21 January 1993 or for Cessna aircraft Cessna Service Bulletin SEB91-5 Revision 1 dated 14 June 1991.

Compliance: Requirement 1. Within 100 hours time in service after 24 June 1993 or at the next periodic servicing, whichever occurs first, and thereafter, at intervals not to exceed 2000 hours time in service.

Requirement 2. Within 100 hours time in service after 24 June 1993.

Note: FAA AD 93-05-06 Amdt 39-8511 refers.

Background: The FAA has received numerous reports of ignition switch failures caused by internal wear and arcing of the contact surfaces.

Compliance with this Directive will decrease the likelihood of an inability to control electrical power supply to the engine occurring.

This amendment eases the compliance period of Requirement 2 due to spares not being readily available.

AD/ELECT/60 Precise Flight Incorporated Pulselite 9/93

Applicability: Precise Flight Incorporated, Pulselite Units Model 1210-2405-2 serial numbers X00150 through X01371 inclusive.

Note: These units may be installed in various small aircraft in accordance with FAA Supplemental Type Certificate SA4005NM.

Requirement:

1. Either, remove from service all Pulselite units identified in the applicability statement and return the aircraft to its original state or replace the Model 1210-2405-2 units with Model 1210-2405-2A units in accordance with Precision Flight Incorporated Service Bulletin PL9303001 dated 10 March 1993.

2. New installations of Model 1210-2405-2 Pulselite units are prohibited.

Note: FAA AD 93-12-04 Amdt 39-8610 refers.

Compliance: Requirement 1 - Prior to 19 August 1994.

Requirement 2 - Effective 19 August 1993.

Background: The manufacturer has received reports of Pulselite units overheating and failing due to under-rated transistors, together with location of the transistors relative to the heat sink fins. The overheating may lead to a pungent smell followed by smoke entering the cockpit and in the worst case the possibility of enough heat being generated by the unit to damage surrounding areas. Compliance with this Directive decreases the likelihood of overheating of the units occurring. The compliance time required by the FAA has been extended by one calendar month.

AD/ELECT/61 Nordskog Water Heaters and Coffee Makers 2/94 DM

Applicability: Nordskog water heaters and coffee makers identified in Nordskog Industries Inc Service Bulletin SB-93-34 dated 21 October 1993; as installed in, but not limited to, the following aircraft series:

Boeing Model 727, 737, 747, 757 and 767;

McDonnell Douglas Model DC-9, DC-9-80, DC-10 and MD-11;

Airbus Industrie Model A300, A310 and A320;

Gulfstream Model G-1159 and G-IV;

de Havilland Model DHC-8;

Dassault-Aviation Mystere-Falcon Model 50 and 900;

Canadair Model CL-600-1A11, CL-600-2A12, CL-600-2B16 & CL-600-2B19; and

Fokker Model F27 and F28.

Requirement:

1. Inspect the water heater or coffee maker, in accordance with Nordskog Industries Service Bulletin SB-93-34, to determine if a NUPRO pressure relief valve having part number SS-2C4-65 has been installed.

2. If a NUPRO pressure relief valve part number SS-2C4-65 has been installed, then either:

   a. replace the pressure relief valve with a new, improved NUPRO pressure relief valve part number SS-CHF2-65, or

   b. deactivate the water heater or coffee maker and install a placard stating **`Not to be used".**

3. NUPRO pressure relief valve part number SS-2C4-65 held as spares are not to be fitted to water heaters or coffee makers identified in Nordskog Industries Inc Service Bulletin SB-93-34 dated 21 October 1993 and these water heaters or coffee makers are not to be fitted to aircraft as replacement items, if a NUPRO pressure relief valve part number SS-2C4-65 is installed.

Note: FAA AD 93-23-01 Amdt 39-8735 refers.

Compliance: 1 - Prior to 7 January 1994.

2 - Prior to further flight.

3 - With effect 8 December 1993.

Background: The FAA recently received reports of injuries to cabin crew members that resulted from explosions of galley water heaters. One report stemmed from an incident in which a water heater exploded in the galley, tore a hole through the the galley wall and landed in the cockpit, injuring two flight attendants and the co-pilot, and at the same time cutting several electrical cables. Investigation has revealed that the `O" ring jammed the poppet of the pressure relief valve, resulting in over-pressurisation. Compliance with this Directive will decrease the likelihood of galley water heaters and coffee makers exploding, causing injuries to passengers and crew and structural damage to the aircraft.

AD/ELECT/62 Inventum Water Heaters 5/94

Applicability: Inventum Galley Products Division Model DR1 and DR6 series Water Heaters, part numbers and serial numbers as listed in Inventum Alert Service Bulletin (ASB) DR1/DR6-25-4 Revision A and ASB DR1/DR6-25-5 Revision A, both dated 6 December 1993.

Note: The water heaters are known to be installed in, but not limited to, the following aircraft models:

Boeing	*727 and 737*
McDonnell Douglas	*DC-9*
Fokker	*F28 (except Mk. 1000)*

Requirement:

1. Perform a one time inspection on all affected water heaters to determine whether:

   a. a pressure relief valve has been installed in accordance with Inventum Service Bulletin (SB) 25-330 dated 8 July 1976, SB 25-331 Revision 1 dated 28 September 1977 or ASB DR1/DR6-25-4 Revision A dated 6 December 1993 as applicable; and

   b. two 3-phase safety devices have been installed in accordance with Inventum SB 25-340 dated 7 July 1977, SB 25-344 dated 18 January 1978, SB 25-345 dated 16 February 1978, SB 25-346 dated 16 February 1978 or ASB DR1/DR6-25-5 Revision A dated 6 December 1993 as applicable.

2. If a pressure relief valve and/or two 3-phase safety devices (as applicable) have not been installed, then either:

   a. remove the water heater from the aircraft and install a modified water heater, or

   b. deactivate the water heater and install a placard stating **"Not to be used".**

3. Inventum Model DR1 and DR6 water heaters are not to be fitted to aircraft as replacement items, unless modified in accordance with the referenced Inventum Service Bulletins.

Note: RLD AD 93-168 (AB) dated 17 December 1993 refers.

Compliance:

1 - Prior to 1 July 1994.

2 - Prior to further flight after the Requirement 1 inspection.

3 - With effect 28 April 1994.

Background: The RLD has received a report of an aircraft Inventum DR6 galley water heater exploding during an overheat test in a maintenance facility. Investigation revealed that the heater did not have a pressure relief valve or 3-phase safety devices installed. Since this condition may exist on other similar Inventum water heaters, this Directive is issued to prevent explosions of water heaters and subsequent injuries to passengers or cabin crew members.

AD/ELECT/63 TCM (Bendix) Magneto Capacitor 9/94 Amdt 1

Applicability: 1. Teledyne Continental Motors (TCM) Ignition Systems (formerly Bendix) new or rebuilt magnetos Models SC-20, SC-200 and S-1200 (Part Number Series 10-500XXX-X, 10-600XXX-X and 10-349XXX-X respectively) with Manufacturing (Serial) Numbers J2793XXX(R) through J3193XXX(R), K0193XXX(R) through K3093XXX(R) and L0193XXX(R) through L2293XXX(R) inclusive.

2. All TCM or Bendix Model SC-20, SC-200 and S1200 magnetos, regardless of Manufacturing (Serial) Number, that have been fitted with a replacement capacitor Part Number 10-349276 subsequent to 27 October 1993.

Note: The `X" in the part and serial numbers represents numbers that have no significance in determining applicability, only the first five digits are needed. The "(R)" at the end of the manufacturing (serial) number indicates a "rebuilt" magneto, while the absence of the "(R)" indicates a "new" magneto.

Requirement: Action in accordance with Teledyne Continental Ignition Systems Critical Service Bulletin CSB641 dated 1 February 1994.

Note: FAA Priority letter AD 94-06-09 refers.

Compliance: The compliance for the original issue of this Directive was within ten hours time in service after 25 March 1994. The compliance for this amendment is unless previously accomplished in accordance with the original issue of this Directive then within 50 hours time in service from 18 August 1994.

Background: TCM Ignition Systems have advised that quality assurance testing has revealed the potential for capacitors Part Number 10-349276 to have an intermittent open circuit condition. This condition is isolated to two batch lots (93-40 and 93-42) and is readily identifiable by inspection of the capacitor. If not corrected, the condition could result in a `Hot Magneto" (ie the magneto is not grounded when the magneto/ignition switch is placed in the off position).

The inspection mandated by this Directive is designed to correct this situation. This amendment is issued to correct the serial number range of the new or rebuilt magnetos that may be affected.

Note: TCM Ignition Systems Service Information Letter SIL642 provides an explanation of manufacturing or serial numbering system used on TCM Ignition System products.

AD/ELECT/64 Nordskog Water Heaters and Coffee Makers 10/94

Applicability: Nordskog water heaters and coffee makers, without an integral check valve, identified in Nordskog Industries Inc Service Bulletin SB-93-35 dated 21 October 1993, which were either manufactured between January 1990 and July 1991 or serviced since January 1990.

Note: The water heaters and coffee makers are known to be installed in, but not limited to the following aircraft series:

Airbus Industrie Model A300, A310 and A320;

Boeing Model 727, 737, 747, 757 and 767;

Canadair Model CL-600-1A11, CL-600-2A12, CL-600-2B16 and CL-600-2B19;

Dassault-Aviation Model Mystere Falcon Model 50, 200 and 900;

de Havilland Model DHC-8;

Fokker Model F27 and F28;

Gulfstream Model G-1159 and G-IV;

Lockheed L-1011; and

McDonnell Douglas Model DC-9, DC-9-80, DC-10 and MD-11;

Requirement:

1. Perform a one time inspection of the water heater or coffee maker, in accordance with Nordskog Industries Service Bulletin SB-93-35, to determine if a NUPRO pressure relief valve having part number SS-2C4-65 has been installed.

2. If a NUPRO pressure relief valve part number SS-2C4-65 has been installed then either:

   a. replace the pressure relief valve with a new, improved NUPRO pressure relief valve part number SS-CHF2-65, or

   b. deactivate the water heater or coffee maker and install a placard stating `Not to be used'.

3. NUPRO pressure relief valves part number SS-2C4-65, held as spares are not to be fitted to water heaters or coffee makers identified in Nordskog Industries Service Bulletin SB-93-35 and these water heaters or coffee makers are not to be fitted to an aircraft as replacement items, if a NUPRO pressure relief valve part number SS-2C4-65 is installed.

Note: FAA AD 94-14-03 Amdt 39-8955 refers.

Compliance: 1 - Prior to 15 September 1995.

2 - Prior to further flight.

3 - With effect 15 September 1994.

Background: The FAA received a report of injuries to cabin crew members that resulted from an explosion of a galley water heater caused by the failure of the pressure relief valve. Although that heater was fitted with an integral check valve, the FAA has determined that the possibility exists for the pressure relief valve to fail in other water heaters or coffee makers without the integral check valve.

Compliance with this Directive will decrease the likelihood of galley water heaters and coffee makers exploding, causing either injuries to passengers and crew or structural damage to the aircraft.

AD/ELECT/65 Marathon Power Technologies PC-250 Static Inverter 10/94

Applicability: Marathon Power Technologies PC-250 series static inverters, where installed to provide a source of emergency or standby electrical power.

Note: These inverters are known to be installed in, but not limited to, the following aircraft models:

Hawker 800 and BAe 125 Series 800 prior to Constructors Number 258248

DH/BH/HS/BAe 125 Series 1 to 700 post modification 252740

Requirement: Action in accordance with Marathon Power Technologies Service Bulletin 111692-014 Revision 1 dated 15 March 1993.

Note: CAA(UK) AD 005-05-94 refers.

Compliance: Prior to 15 March 1995.

Background: The CAA(UK) has reported that PC-250 static inverters have failed because of moisture ingress. Compliance with this Directive will ensure that the inverters are protected from moisture ingress.

AD/ELECT/66 Bendix Magneto Coils and Rotating Magnets 10/95 Amdt 1

Applicability: Teledyne Continental Motors (TCM) Ignition Systems (formerly Bendix) magnetos as listed below. Magnetos manufactured by Bendix in Jacksonville FL and those manufactured by TCM in Atlanta GA (as indicated on the data plate) are excluded.

S-20, S-200 and S-600 series magnetos with either serial numbers below 2000000 without any letter prefix or with serial numbers below 16058 having the letter `A" prefix (for example A16057).

S-20, S-200 and S-600 series magnetos with data plates marked `REMANUFACTURED" and with serial numbers below 901001.

S-1200 series magnetos with either serial numbers below 2000000 without any letter prefix or with serial numbers below 132844 having the letter `A" prefix.

S-1200 series magnetos with data plates marked `REMANUFACTURED" and with serial numbers below 901001.

Note 1: CASA has received reports of some confusion as to what is meant by S-20, S-200, S-600 and S-1200. A typical example is S6RN-25, where the `S" designates a single type ignition unit, the `6" designates the number of engine cylinders, the `R" designates right hand rotation, the `N" is the manufacturer designator (this did not change when TCM purchased the Bendix magneto product line) and the number after the dash indicates the series (a -25 is a S-20 series magneto, while a -1225 is a S-1200 series magneto.

Note 2: If a Bendix magneto data plate has been replaced with an overhaul facility's data plate, this Directive is still applicable to that magneto as the magneto is a Bendix magneto.

Note 3: Yellow Bendix or TCM service spare data plates may have been installed during field overhaul, use the magneto model and serial number to determine the applicability of this Directive.

Note 4: The paint on some early data plates may have been obliterated and the data plate may appear silver in colour, use the magneto model and serial number to determine the applicability of this Directive.

Requirement: For Bendix S-20 and S-200 series magnetos, inspect and if necessary, replace Bendix ignition coils and rotating magnets identified in the Detailed Instructions of TCM Ignition Systems Mandatory Service Bulletin MSB644 dated 4 April 1994 with appropriate serviceable ignition coils and rotating magnets.

For the Bendix S-600 series magnetos, inspect and if necessary, replace Bendix rotating magnets identified in the Detailed Instructions of TCM Ignition Systems Mandatory Service Bulletin MSB644 dated 4 April 1994 with appropriate serviceable rotating magnets. (Ignition coils of the S-600 series magnetos already incorporate the improved design.)

For the Bendix S-1200 series magnetos, inspect and if necessary, replace Bendix ignition coils identified in the Detailed Instructions of TCM Ignition Systems Mandatory Service Bulletin MSB644 dated 4 April 1994 with appropriate serviceable ignition coils. (The rotating magnets of the S-1200 series magnetos already incorporate the improved design.)

Note: Previous compliance with AD/ELECT/53 Amdt 2 or earlier issues of that Directive does not constitute full compliance with this Directive, similarly compliance with Bendix Electrical Components Division Service Bulletin 560 or 560A would not constitute full compliance.

Compliance: The original compliance remains unchanged as within the next 100 hours time in service after 10 November 1994. This amendment is effective from 14 September 1995.

Note: FAA AD 94-01-03 R2 Amdt 39-9271 refers.

Background: The original issue of this Directive superseded AD/ELECT/53 Amdt 2, which was cancelled. Reports are still being received of `clear case coils" being identified during magneto servicing, compliance with this Directive, whilst ensuring that all coils of this type are finally removed from Australian aircraft, will also ensure that older style rotating magnets are removed.

This amendment is issued to clarify the applicability statement and reflects the issue of a revision to the FAA Airworthiness Directive, no further action is required if magnetos are in compliance with the original issue of this Directive.

AD/ELECT/67 Aerospace Lighting Corporation Cabin Fluorescent Lighting System Components 3/96

Applicability: This Directive is applicable to the following Aerospace Lighting Corporation (ALC) products:

Lamp Connectors part number (P/N) 31.85.1.A;

Series 66 fluorescent lamps;

Power Units P/N TR-991, TR-992, AL-0546 and AL-0514; and

Power Supplies P/N 18-95D and AL-0598.

Note 1: These products are utilised in cabin fluorescent lighting systems and are known to be installed on, but not limited to, the following aircraft series:

Airbus Industrie	*A310*
Avion Marcel Dassault Aviation	*Falcon 10*
Boeing	*727, 737, 747 and 757*
Raytheon Corporate Jets (formerly BAe)	*HS 125-600, -700, -800 and -1000*
Bombardier Canadair	*CL-600-1A11, -2A12, -2B16, -2B19, CL-601, CL-601-3A and -3R*
Cessna	*550 and 560*
Dassault Aviation	*Mystere-Falcon 20 and 50*
Embraer	*EMB-120*
Gulfstream	*G-159, G-1159, G-1159A and G-IV*
Israel Aircraft Industries	*1124 and 1125*
Jetstream	*3100*
Learjet	*35 and 36*
Saab	*SF 340A*
Sikorsky	*S-76A*

Note 2: The following information is provided as an aid to the identification of fluorescent lighting system components manufactured by ALC. Components manufactured by ALC and those manufactured by SELA Laboratoire Abadie (SELA) are very similar in size, shape, colour and part number, however they may be identified by trademark. The ALC power unit can be identified by a stylised ALC logo with `Aerospace Lighting Corp' in smaller print beneath the logo while the SELA power unit can be identified by a starburst pattern incorporating the text `laboratoire, abadie, France'. The ALC lamp connector has ALC moulded into the body of the conical piece of the connector while the SELA lamp connector is only stamped in yellow ink. The ALC lamp can be positively identified by the presence of a small hole in the locking channel of each blue plastic end piece.

Requirement:

1. Inspect the cabin fluorescent lighting system in accordance with ALC Information Bulletin IB 90-001 dated 15 August 1992 Part IV `Fluorescent Lighting System Components Identification and Inspection Procedures' sub-paragraphs B.1, 2, 3, 5, 6 and 7.

2. Remove and replace, in accordance with the procedures in Part IV sub-paragraphs B.4, 8 and 9 of IB 90-001 dated 15 August 1992, any part or parts found to be damaged or improperly configured.

Note: FAA AD 95-22-01 Amdt 39-9408 refers.

Compliance: For Requirement 1 - If not previously accomplished in accordance with AD/ELECT/56, then prior to 29 April 1996.

For Requirement 2 - Before further flight, if any part or parts are found to be damaged or improperly configured during the Requirement 1 inspection or within five flights or 10 hours time in service, whichever occurs first, of a cabin fluorescent lighting system component failure.

Replacement of the following ALC parts, in accordance with the following instructions, constitutes terminating action for the repetitive inspection requirement following failure of a lighting system component:

a. Remove power units, P/N TR-991 or AL-0546, and replace with protected power unit, P/N AL-5117, in accordance with ALC Installation Instruction No AL-11025M dated 15 March 1992.

b. Remove power units, P/N TR-992 or AL-0514, and replace with protected power unit, P/N AL-5112, in accordance with ALC Installation Instruction No AL-11024M dated 15 March 1992.

c. Remove power supplies, P/N 18-95D or AL-0598 and dimmer, P/N 22-311 or AL-0542, and replace with protected power supply, unit P/N AL-5118 or AL-5130, in accordance with ALC Installation Instruction No AL-11023M, Revision A dated 20 May 1994.

Background: Numerous incidents of smoke and fire have been reported on aircraft using SELA Laboratoire Abadie and ALC fluorescent lighting system components. The cause of these incidents has been attributed to high voltage arcing or overheating of the lamp connector or remote power unit and prompted the issuing of AD/ELECT/56.

This Directive partially supersedes AD/ELECT/56 and is applicable to components manufactured by ALC. This Directive clarifies both the requirement and compliance statements, whilst also providing an optional terminating action to the repetitive inspection following failure of a lighting system component. Actions specified by this Directive are necessary in order to prevent smoke, fire and possible electric shock or electromagnetic interference to flight critical or essential systems.

AIRWORTHINESS DIRECTIVE

On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive AD/ELECT/68.

Electrical Equipment

AD/ELECT/68 Bendix Impulse Coupling Inspection 9/2005

Requirement: CANCELLED.

This AD is cancelled on 1 September 2005.

Background: This Directive is superseded by AD/ELECT/75 which is only applicable to magnetos installed on certain Lycoming engine models.

Data supplied to the United States Federal Aviation Administration indicated that there was a significant difference in wear and reliability of magnetos installed on Lycoming 540 series engines as compared with other engines.

Teledyne Continental Ignitions Systems Service Bulletin SB643B dated 6 April 2005 provides the manufacturer recommended periods for inspection/overhaul for magnetos installed on all engines.

David Villiers
Delegate of the Civil Aviation Safety Authority

22 July 2005

AD/ELECT/69 Steam Oven Motor Relay 10/98 DM

Applicability: B/E Aerospace Inc, Royal Inventum Company (Inventum), Galley Products Division Model DS900 series Steam Ovens; part number (P/N) 72070000, serial numbers (S/N) 0001 through 0035 inclusive; P/N 72070100, S/N 0001 through 0035 inclusive; P/N 72070500, S/N 0002 through 0127 inclusive and P/N 72070501, S/N 0057 through 0133 inclusive.

Requirement: Modify the motor relay in accordance with B/E Aerospace (Inventum) Alert Service Bulletin 72070000-25-01, 72070500-25-01 or 72070501-25-01, as applicable, all at Revision A dated 1 May 1998.

Note: RLD AD 1998-067 (AB) dated 30 June 1998 refers.

Compliance: Before installation in an aircraft as a replacement unit or prior to 1 January 1999, at the latest, whichever occurs first.

This airworthiness directive becomes effective on 5 August 1998.

Background: The Netherlands Rijksluchtvaartdienst has received two reports of Inventem Model DS900 Steam Ovens generating smoke during flight. Subsequent investigation revealed a component failure which caused the oven motor to continue running when it should have switched off. This resulted in the motor overheating and causing smoke in the aircraft cabin.

This directive requires a modification incorporating a relay, the modification is designed to ensure that the motor switches off and does not overheat.

AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive AD/ELECT/70 Amdt 1 and issues the following AD under subregulation 39.1 (1) of CAR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

AD/ELECT/70 Amdt 2 — Inflatable Door Seal System — 1/2001

Applicability: Bob Fields Aerocessories inflatable door seal systems installed either in accordance with Federal Aviation Administration (FAA) Supplemental Type Certificate (STC) or through FAA field approval, that are installed on but not limited to, the following aircraft:

Affected STC	Make and Model Aircraft Affected
SA3735NM	Cessna Models 170, 170A, and 170B
SA4136WE	Cessna Models 310, 310A, 310B, 310C, 310D, 310E, 310F, 310G, 310H, 310I, 310J, 310K, 310L, 310N, 310P, 310Q, 310R, T310P, T310Q, and T310R
SA2226NM	Cessna Models P210N and P210R
SA3736NM	Cessna Models 185, 185A, 185B, 185C, 185D, A185E, and A185F
SA4177WE	Cessna Models 175, 175A, 175B, and 175C
SA4212WE	Cessna Models 210, 210A, 210B, 210C, 210D, 210E, 210F, 210G, 210H, 210J, 210K, 210L, 210M, 210N, T210F, T210G, T210H, T210J, T210K, T210L, T210M, T210N, 210-5 (205), and 210-5A (205A)
SA4283WE	Cessna Models 172, 172A, 172B, 172C, 172D, 172E, 172F, 172G, 172H, 172I, 172K, 172L, 172M, and 172N
SA4284WE	Cessna Models 180, 180A, 180B, 180C, 180D, 180E, 180F, 180G, 180H, 180J, and 180K
SA4285WE	Cessna Models 182, 182A, 182B, 182C, 182D, 182E, 182F, 182G, 182H, 182J, 182K, 182L, 182M, 182N, 182P, 182Q, R182, and TR182

SA4286WE	Cessna Models 206, P206, P206A, P206B, P206C, P206D, P206E, TP206A, TP206B, TP206C, TP206D, TP206E, U206, U206A, U206B, U206C, U206D, U206E, U206F, U206G, TU206A, TU206B, TU206C, TU206D, TU206E, TU206F, and TU206G
SA4287WE	Cessna Models 320, 320A, 320B, 320C, 320D, 320E, 320F, and 320-1
SA4180WE	Raytheon (Beech) Models H35, J35, K35, M35, N35, P35, S35, V35, V35A, V35B, 35-33, 35-A33, 35-B33, 35-C33, 35-C33A, E33, E33A, E33C, F33, F33A, F33C, G33, 36, A36, A36TC, and B36TC
SA4184WE	Raytheon (Beech) Models 95, B95, B95A, E95, 95-55, 95-A55, 95-B55, 95-B5A, 95-B55B, 95-C55, D55, E55, 56TC, 58, and 58A
SA4239WE	Raytheon (Beech) Models 58P, 58PA, 58TC, and 58TCA
SA4240WE	Raytheon (Beech) Models 50, B50, C50, D50, D50A, D50B, D50C, D50E, D50E-5990, E50, F50, G50, H50, and J50
SA4282WE	Raytheon (Beech) Models 35, A35, B35, C35, D35, E35, F35, G35, and 35R
SA4178WE	Mooney Models M20, M20A, M20C, M20D, M20E, M20F, M20G, M20J, and M20K
SA4234WE	The New Piper Aircraft, Inc. (Piper) Models PA-34-200, PA-34-200T, and PA-34-220T
SA4179WE	Piper Models PA-24, PA-24-250, PA-24-260, and PA-24-400
SA4235WE	Piper Models PA-44-180 and PA-44-180T
SA4236WE	Piper Models PA-28-140, PA-28-150, PA-28-160, PA-28-180, PA-28-235, PA-28-151, PA-28-181, PA-28-161, PA-28-236, PA-28-201T, PA-285-160, PA-28S-160, PA-28S-180, PA-28R-180, PA-28R-200, PA-28R-201, PA-28R-201T, PA-28RT-201, and PA-28RT-201T
SA4237WE	Piper Models PA-23, PA-23-160, PA-23-235, PA-23-250, and PA-E23-250
SA4238WE	Piper Models PA-30, PA-39, and PA-40

SA4385WP	Piper Models PA-31, PA-31-300, PA-31-325, and PA-31-350
SA4288WE	Piper Models PA-32-260, PA-32-300, PA-32S-300, PA-32-301, PA-32-301T, PA-32R-300, PA-32R-301, PA-32R-301T, PA-32RT-300, and PA-32RT-300T
SA2511NM	Bellanca Models 17-30, 17-31, and 17-31TC
SA2510NM	Bellanca Models 17-30A, 17-31A, and 17-31ATC
SA4316WE	Wing Aircraft Company Model D-1

Requirement:

1. Unless already accomplished in accordance with previous issues of this Directive, deactivate the electric door seal inflation system by accomplishing the following:

   a. Disconnect the battery.

   b. Locate the air pump and identify the power wire to the air pump.

   c. Trace the power wire to its connection to the aircraft's original electrical power system. Disconnect the power wire at its attachment to the aircraft's electrical power system and stow the wire end.

   d. Reconnect the battery before returning the aircraft to service.

2. For non-pressurised aircraft or for aircraft that have an operating manual door seal inflation system, unless already accomplished in accordance with previous issues of this Directive:

   a. Fabricate a placard that incorporates the following words utilising letters that are at least 2.5mm (0.1 inches) in height and install the placard on the instrument panel within the pilot's clear view:

      "ELECTRIC DOOR SEAL INFLATION SYSTEM INOPERATIVE"

   b. Add the following statement to the Limitations section of the Flight Manual:

      "ELECTRIC DOOR SEAL INFLATION SYSTEM INOPERATIVE"

      This task may be accomplished by inserting a copy of this Airworthiness Directive into the Limitations section of the Flight Manual.

3. For pressurised aircraft or for aircraft that do not have an operating manual door seal inflation system unless already accomplished in accordance with previous issues of this Directive:

a. Fabricate a placard that incorporates the following words utilising letters that are at least 2.5mm (0.1 inches) in height and install the placard on the instrument panel within the pilot's clear view:

"ELECTRIC DOOR SEAL INFLATION SYSTEM INOPERATIVE THIS AIRCRAFT CAN ONLY BE OPERATED IN UNPRESSURISED FLIGHT"

b. Add the following statement to the Limitations section of the Flight Manual:

"ELECTRIC DOOR SEAL INFLATION SYSTEM INOPERATIVE THIS AIRCRAFT CAN ONLY BE OPERATED IN UNPRESSURISED FLIGHT"

This task may be accomplished by inserting a copy of this Airworthiness Directive into the Limitations section of the Flight Manual.

4. Bob Fields Aerocessories electrically inflatable door seals are not to be installed on any aeroplane unless the actions specified in Bob Fields Aerocessories Service Bulletin No BFA-001 dated 3 November 1998 have been incorporated.

Note 1: FAA AD 98-21-21 Revision 1 Amdt 39-11621 refers.

Note 2: Following are optional alternate methods of compliance:

a. Removal of all provisions of the Bob Fields Aerocessories Inflatable door seals and installation of the original equipment manufacturer door seals or other approved equivalent that is of a different design to the referenced Bob Fields Aerocessories inflatable door seals.

b. For Cessna P210 series (pressurised) aeroplanes or other aeroplanes that can obtain pressurisation without the door seals inflated:

(1) Fabricate a placard that incorporates the following words utilising letters that are at least 2.5mm (0.1 inches) in height and install the placard on the instrument panel within the pilot's clear view:

"ELECTRIC DOOR SEAL INFLATION SYSTEM INOPERATIVE"

(2) These aircraft can be operated pressurised with the electric door seal system inoperative in accordance with the applicable Flight Manual provisions for pressurised flight.

c. The installation of a manually operated pump and retention of the Bob Fields Aerocessories STC provisions, except that the electric system must be deactivated in accordance with Requirement 1 of this Directive, noting that the design of the modification incorporating the pump must be approved by a person that either holds a delegation or an instrument of appointment under Regulation 35 of the Civil Aviation Regulations 1988.

d. Modify the electric door seal inflation system in accordance with the procedures in Bob Fields Accessories Service Bulletin No BFA-001.

Compliance:

1. Remains unchanged as - Before further flight.

2. Remains unchanged as - Before further flight.

3. Remains unchanged as - Before further flight.

4. As of the effective date of this Amendment.

This Amendment becomes effective on 25 January 2001.

Background: The FAA has received numerous reports of occurrences of overheated components associated with the electric door seal inflation system on aircraft equipped with Bob Fields Aerocessories inflatable door seals installed in accordance with the applicable FAA STC. One occurrence resulted in an in-flight fire, other occurrences have resulted in:

a. the electric door seal pump being heavily charred,

b. the pump assembly and resistors of the electric door seal pump being partially melted, and

c. vinyl, plastic and insulation material in the proximity of the electric door seal inflation system being found burned.

The original issue of the Directive required the deactivation, or alternatively, the removal of the Bob Fields Aerocessories inflatable door seal system, this will decrease the likelihood of an in-flight fire resulting from the overheating of the door seal system components.

Amendment 1 was issued to reflect the alternate methods of compliance introduced by the FAA. This Amendment also removed aeroplanes with STC SA4472NM incorporated from the applicability.

Amendment 2 removed aeroplanes with STC SA4213WE incorporated from the applicability and introduced an additional alternate method of compliance. The Amendment also allows the installation of Bob Fields Aerocessories door seal inflation systems provided that SB No BFA-001 was incorporated.

The original issue of this Airworthiness Directive became effective on 12 October 1998.

Amendment 1 of this Airworthiness Directive became effective on 31 December 1998.

Eugene Paul Holzapfel
Delegate of the Civil Aviation Safety Authority

11 December 2000

The above AD is notified in the *Commonwealth of Australia Gazette* on 20 December 2000.

AD/ELECT/71 SAFT America Inc. Nickel Cadmium Batteries 13/98

Applicability: SAFT America Inc. Nickel Cadmium batteries with the following part numbers, manufactured prior to December 1997:

SAFT America Part Number	McDonnell Douglas Part Number
021929-000	43BO34LB02
021904-000	43BO34LB03

Note: These batteries are known to be fitted to, but not limited to, McDonnell Douglas DC-9 and MD-80 series aeroplanes.

Requirement: Replace all battery terminal screws, verify that the battery contains design specification cells and if the battery contains non-design specification cells, replace those cells. Accomplish these actions in accordance with the instructions section of SAFT Aviation Batteries Service Bulletin Document No A00027, Rev G, dated 14 July 1998.

Note 1: A plastic label indicating compliance with this Directive may be obtained from SAFT America Inc. At the following address:

SAFT America Inc.
711 Industrial Boulevard
VALDOSTA, GA 31601

Note 2: This label shall not cover the original part number of the battery.

Note 3: SAFT Aviation Batteries Service Bulletin Document No A00027, Rev G, dated 14 July 1998, provides the option of purchasing this label from SAFT or manufacturing your own label.

Note 4: This label must be installed on the battery as depicted in Figures 3 and 4 on page 8 of SAFT Aviation Batteries Service Bulletin Document No A00027, Rev G, dated 14 July 1998.

Note 5: If the actions required by this Directive have been previously accomplished in accordance with SAFT Aviation Batteries Service Bulletin Document No. A00027, Rev F, dated 15 January 1998, then the only action required by this Directive would be to install a compliance label on the battery as specified in SAFT Aviation Batteries Service Bulletin Document No. A00027, Rev G, dated 14 July 1998.

Note 6: FAA AD 98-20-17 Amdt 39-10784 refers.

Compliance: At the next scheduled battery maintenance that occurs three calendar months after the effective date of this Directive or within the next 15 calendar months after the effective date of this Directive, whichever occurs first.

This Airworthiness Directive becomes effective on 3 December 1998.

Background: Actions required by this Directive are intended to prevent the battery from shorting out or exploding if the heads of fasteners become sheared off. Loss of battery power could result in loss of emergency power to electrical flight systems and other emergency power systems that would be required in the event of the loss of the aircraft primary power source.

AD/ELECT/72 Fluorescent Light Ballasts 4/99

Applicability: Day-Ray Products, Inc cabin sidewall fluorescent light ballasts having the following part numbers:

69-10	69-69	70-94-1
69-10-1	69-69-1	83-12
69-68	70-94	83-12-1
69-68-1		

Note: These fluorescent light ballasts are known to be fitted to, but not limited to, the following aircraft:

McDonnell Douglas Model DC-8, DC-9, DC-10, C-9 (military) and KC-10 (military) series aeroplanes; and Boeing Model 707, 727 and 737 series aeroplanes.

Requirement:

1 Perform a one time visual inspection to determine the type of fluorescent light ballasts installed in the upper and lower cabin sidewall.

2. If any ballast is found, during the Requirement 1 inspection, to have a part number listed in the Applicability Statement of this Directive, remove the light ballast and replace it with a light ballast manufactured by Bruce Industries in accordance with the applicable service bulletin listed below:

Service Bulletin Number and Date	**Affected Aeroplanes**
McDonnell Douglas Service Bulletin DC9-33-103 30 May 1996	Model DC-9-30, -40 and -50 series aeroplanes listed in the effectivity statement of the service bulletin.

Note: Replacement of light ballasts on DC-9-30, 40 and -50 series aeroplanes, in accordance with SB DC9-33-103 is considered acceptable compliance provided that no protective covers are installed on the light ballasts.

McDonnell Douglas Service Bulletin DC9-33-111 6 May 1997	Model DC-9-30, -40 and -50 series aeroplanes listed in the effectivity statement of the service bulletin.
McDonnell Douglas Service Bulletin DC10-33-073 18 June 1996	Model DC-10, -10, -15, -30 and -40 series aeroplanes listed in the effectivity statement of the service bulletin.
Heath Tecna Alert Service Bulletin Mark I-33-A2 Revision 1 24 July 1996	McDonnell Douglas Model DC-8 series aeroplanes retrofitted with Heath Tecna Mark I interior

Heath Tecna Alert Service Bulletin Mark I-33-A3 Revision 1 24 July 1996	Boeing Model 707 series aeroplanes retrofitted with Heath Tecna Mark I interior
Heath Tecna Alert Service Bulletin Mark I-33-A4 Revision 1 24 July 1996	Boeing Model 727 series aeroplanes retrofitted with Heath Tecna Mark I interior
Heath Tecna Alert Service Bulletin Mark I-33-A5 Revision 1 24 July 1996	Boeing Model 737 series aeroplanes retrofitted with Heath Tecna Mark I interior
Heath Tecna Alert Service Bulletin Spmk-33-A1 Revision 1 24 July 1996	Boeing Model 727 series aeroplanes retrofitted with Heath Tecna Spacemaker II or Spacemaker IIa interior
Heath Tecna Alert Service Bulletin Spmk-33-A2 Revision 1 24 July 1996	Boeing Model 737 series aeroplanes retrofitted with Heath Tecna Spacemaker II or Spacemaker IIa interior

3. No Day-Ray fluorescent light ballast having a part number listed in the Applicability Statement of this Directive may be installed in the upper or lower cabin sidewall of any aeroplane.

Note: FAA AD 99-04-10 Amdt 39-11034 refers.

Compliance:

1. Prior to 1 April 2000.

2. Prior to further flight after the Requirement 1 inspection.

3. As of the effective date of this Directive.

This Airworthiness Directive becomes effective on 22 April 1999.

Background: The Federal Aviation Administration has received reports of smoke, fumes and/or electrical fire emitting from passenger compartment baggage bins. Investigation revealed that the incidents were due to the failure of the fluorescent light ballasts.

This Directive is intended to prevent fire in the passenger compartment resulting from failure of the fluorescent light ballasts in the cabin sidewalls.

AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.1 (1) of CAR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

AD/ELECT/73 Britax Sell Galley Equipment 1/2001

Applicability: Galley equipment manufactured by Britax Sell GmbH & Co OHG, Herborn, Germany with Part Numbers (P/N) as listed below equipped with a Tank Assembly P/N 62203-001-005, 62197-015-001, 64761-025-001, 64769-025-003, 64771-025-005, 64771-025-001 or 64790-331-001.

Note 1: Affected Serial Numbers are listed in the applicable Britax Sell GmbH & Co OHG Service Bulletins (SB) referenced below.

Equipment	Part Number
Remote Water Boiler	62204-001-029, 62204-001-031, 62204-001-037 62204-001-043, 62204-001-047 and 62204-001-049
Coffee Maker	64755, 64753-001-003, 64763-201-003, 64769-001-005, 64769-001-007 and 64790-1
Water Boiler	62197-001-001
Beverage Maker	64771-001-001 and 64771-001-003

Requirement:

1. Inspect the Faston Terminal P/N 3-520133-2 (with blue Nylon insulation) connected to the contact pins of Thermal Limiters P/N AC 1544 or P/N AC 1693, as applicable, for electrical arcing, discoloration or signs of over heating such as insulation melting.

2. If any damage is detected during the Requirement 1 inspection replace the affected wires in accordance with the applicable SB as follows:

Service Bulletin Number	Equipment Part Number
E33-4-007SB Revision 1 dated 30 October 2000	62204-001-029, 62204-001-031 62204-001-037, 62204-001-043 62204-001-047, 62204-001-049
E33-4-009SB dated 24 October 2000	64755
E33-4-010SB dated 20 October 2000	62197-001-001

E33-4-011SB dated 21 October 2000	64753-001-003
E33-4-012SB dated 24 October 2000	64763-201-003
E33-4-013SB dated 23 October 2000	64769-001-005, 64769-001-007
E33-4-014SB Revision 1 dated 6 November 2000	64771-001-001
E33-4-015SB dated 23 October 2000	64790-1
E33-4-016SB Revision 1 dated 6 November 2000	64771-001-003

3. Replace the affected wires in accordance with the applicable SB listed above.

Note 2: Luftfahrt-Bundesamt (LBA) (Germany) AD 2000-379 refers.

Compliance: For Requirement 1 - Within 50 hours time in service after the effective date of this Directive.

For Requirement 2 - Before further flight.

For Requirement 3 - At the next 'C' of the aircraft on which the equipment is installed.

This Airworthiness Directive becomes effective on 25 January 2001.

Background: The equipment manufacturer has advised the LBA that the crimping of the present thermal limiter Faston Terminals P/N 3-520133-2 may be insufficient for the current carried through those terminals. This condition could cause an increased resistance in the terminal, resulting in an increased temperature of the terminal and/or melting of the terminal insulation.

This Directive requires an initial inspection of the terminals to detect any damage and, if necessary, replacement of the wires before further flight with eventual replacement at the next 'C' check. These measures are intended to prevent overheating of the terminals, which could cause smoke and/or fire in the galley compartment.

Eugene Paul Holzapfel
Delegate of the Civil Aviation Safety Authority

11 December 2000

The above AD is notified in the *Commonwealth of Australia Gazette* on 20 December 2001.

AIRWORTHINESS DIRECTIVE

On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below repeals Airworthiness Directive (***AD***) AD/ELECT/74 and issues the following AD under subregulation 39.001 (1) of CASR 1998 and subsection 33 (3) of the *Acts Interpretation Act 1901*. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct an unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

Electrical Equipment

AD/ELECT/74 Lermer GmbH Water Boilers 9/2014 AMDT 1

Applicability: This AD applies to Lermer GmbH (previously Lermer) water boilers with any of the following:

(a) Part Number L13471, L13471-05, L13471-11 or L13471-19;

(b) Type Number 1010099-6, 1010099-10, 1010099-6.1 or 1010099-6.2.

However, this AD does not apply to water boilers that have been engraved with either:

(a) one of the following Airbus Service Bulletin (***SB***) numbers: A300-25A0474, A310-25A2146, A300-25A6170, A320-25A1299, A330-25A3174, A340-25A4192; or

(b) the words ‘Complies with AD F-2004-132’.

Note 1: These water boilers are known to be installed on, but not limited to, Airbus A300, A310, A300-600, A318, A319, A320, A321, A330 and A340 series aeroplanes.

Requirement: Get access to the water boiler in accordance with the applicable aircraft maintenance manual and identify the water boiler. If a water boiler bears one of the following Lermer Part Numbers or Type Numbers:

(a) Part Number L13471, L13471-05, L13471-11 or L13471-19;

(b) Type Number 1010099-6, 1010099-10, 1010099-6.1 or 1010099-6.2;

carry out the following:

(a) check the logo on the identification plate at the rear side of the water boiler (see fig 1). If the new DRIESSEN logo exists, no further action is required;

(b) if the old Lermer logo exists, inspect the overheat protection of the water boiler in accordance with Lermer GmbH CMM 25-30-31 page block 300;

Electrical Equipment

AD/ELECT/74 Amdt 1 (continued)

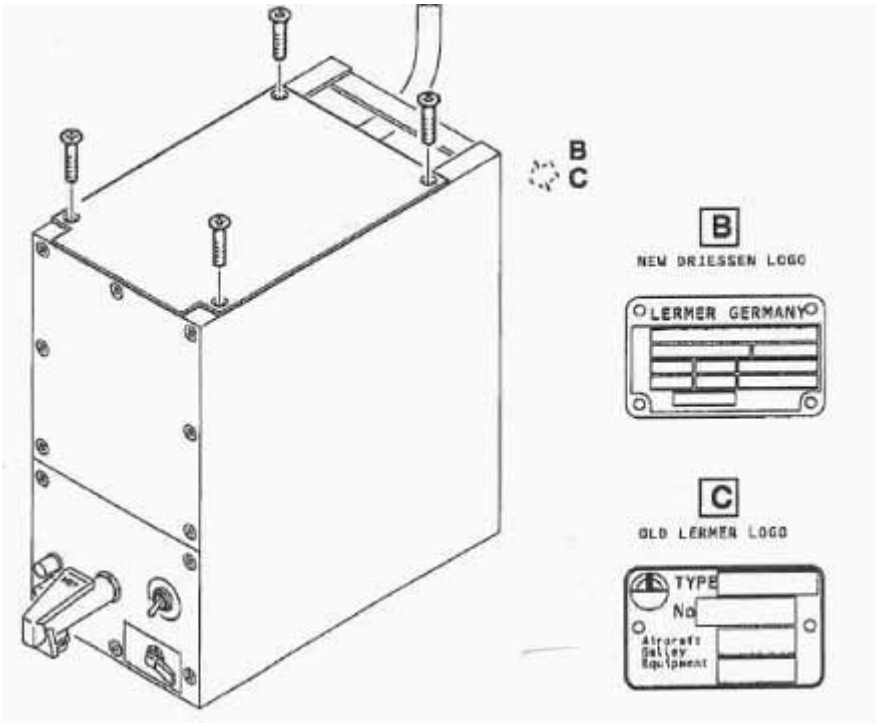

Fig 1 - Lermer Water Boiler

(c) if four or more electrical terminals are connected, engrave adjacent to the equipment label 'Complies with AD F-2004-132';

(d) if less than four electrical terminals are connected, scrap the water boiler and install an airworthy one.

For Airbus aeroplanes, embodiment of the following applicable SB is considered an acceptable mean of compliance for the requirements of this AD:

A300-25A0474	A300-25A6170	A330-25A3174
A310-25A2146	A320-25A1299	340-25A4192.

*Note 2: Direction Générale de l'Aviation Civile of France (**DGAC**) AD F-2004-132 refers.*

Compliance: The action set out in the Requirement section must be taken before 31 December 2004.

The effective date of this AD is 5 May 2014.

Background: DGAC advised that an A330 aircraft made an in-flight turn back due to overheat of a galley water boiler.

Electrical Equipment

AD/ELECT/74 Amdt 1 (continued)

Investigations revealed that some of the Lermer water boilers listed above have a deficiency in the electrical circuit design. In fact, the overheat protector may be installed in serial with the relay control and in case of relay contact sticking, the continuous source of power to the heating element cannot be cut. This situation may lead to the emission of a burning smell together with smoke and possible injury to the aeroplane's occupants.

In response to this situation, CASA issued AD/ELECT/74 dated 5 August 2004 to require the inspection of applicable water boilers. Water boilers with overheat protection having less than 4 electrical terminals are discarded; those with 4 or more electrical terminals are marked as having been inspected and returned to service.

CASA issued AD/ELECT/74 Amdt 1 to correct a typographical error in the DGAC AD number referenced in Note 2 of this AD. There are no changes to the technical requirements of the AD and the dates for compliance remain unchanged.

Mike Higgins
Delegate of the Civil Aviation Safety Authority

28 April 2014

AIRWORTHINESS DIRECTIVE

On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive (AD) AD/ELECT/75 and issues the following AD under subregulation 39.001(1) of CASR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

Electrical Equipment

AD/ELECT/75 TCM Magneto Impulse Coupling 9/2005 Amdt 1

Applicability: Teledyne Continental Motors (TCM) (formerly Bendix) magnetos that have a magneto part number (P/N) listed in Table 1, installed on Lycoming AEIO-540, HIO-540, IO-540, O-540 and TIO-540 series engines:

Table 1

P/N	Model	P/N	Model
10-51365-32	S6LN-21	10-79020-18	S6LN-25
10-51365-34	S6RN-21	10-79020-19	S6RN-25
10-51365-35	S6RN-21	10-79020-118	S6LN-25P
10-51365-39	S6LN-21	10-79020-119	S6RN-25P
10-51365-40	S6LN-21	10-500556-101	S6RSC-25P
10-51365-43	S6LN-21	10-500556-901	S6RSC-25P
10-51365-47	S6RN-21	10-349350-4	S6RN-1225
10-51365-48	S6RN-21	10-349350-5	S6RN-1225
10-51365-54	S6LN-21	10-349350-6	S6LN-1225
10-51365-57	S6LN-21	10-349350-7	S6LN-1225
10-52350-19	S6RN-23	10-349370-4	S6LN-1227
10-52350-20	S6LN-23	10-382560-11	D6LN-2031
10-79020-6	S6LN-25	10-382560-13	D6LN-2031
10-79020-10	S6RN-25	10-682560-11	D6LN-3000
10-79020-11	S6LN-25	10-682560-13	D6LN-3000
10-79020-16	S6LN-25	10-682560-131	D6LN-3000
10-79020-17	S6LN-25		

Note 1: Table 1 is a partial reproduction of Table 1 from TCM Mandatory Service Bulletin (MSB) MSB645, dated 4 April 1994.

Note 2: Lycoming AEIO- 540, HIO-540, IO-540, 0-540 and TIO-540 series engines are known to be installed on, but not limited to, aircraft manufactured by the Cessna Aircraft Company, Maule Aerospace Technology Corporation, Mooney Aircraft Corporation, The New Piper Aircraft Inc. and Raytheon Aircraft Company (Formerly Beech Aircraft Company).

Requirement: 1. Inspect the impulse coupling assembly for wear using paragraphs 1.2 through 1.4.5 of the Detailed Instructions of TCM MSB645.

Electrical Equipment

AD/ELECT/75 Amdt 1 (continued)

Installing a "Shower-of-Sparks" ignition system in place of a magneto system that has a riveted-impulse coupling assembly or a snap-ring impulse coupling assembly is optional terminating action for the repetitive inspection requirements. More information on installing a "Shower-of-Sparks" ignition system may be found in TCM Service Information Letter SIL648, dated 18 October 1994.

2. Replace any impulse coupling assembly that fails the inspection with a serviceable riveted or snap-ring impulse coupling assembly. Paragraphs 2 through 2.6 of the Detailed Instructions of TCM MSB645 and TCM Service Bulletin 639 dated March 1993 contain information on replacing the impulse coupling assembly.

3. If a snap-ring impulse coupling assembly is replaced with a riveted impulse coupling assembly, strike out the "A" on the magneto data plate.

Note 3: FAA AD 2005-12-06 Amdt 39-14122 refers.

Compliance: For Requirement 1 -

a. **Magnetos that have not previously been inspected** - Initially as specified in Table 2 and thereafter as specified in Table 3.

Table 2

Type of Impulse Coupling Assembly	Impulse Coupling Time in Service (TIS) as of the Effective Date of this Directive	Inspect
Riveted	100 or more hours time since new or overhaul (TSN) or TSN is unknown. Fewer than 100 hours TSN.	Within 10 hours TIS after the effective date of the original issue of this Directive. Before accumulating 100 hours TSN.
Snap-ring	450 or more hours TSN. Fewer than 450 hours TSN.	Within 50 hours TIS after the effective date of the original issue of this Directive. Before accumulating 500 hours TSN.

Note 4: Previous inspections may have been accomplished in accordance with AD/ELECT/68 (FAA AD 96-12-07).

b. **Magnetos that have previously been inspected** - Repeat the inspections as specified in Table 3.

Electrical Equipment

AD/ELECT/75 Amdt 1 (continued)

Table 3

Type of Impulse Coupling Assembly	Inspect
Riveted	Within 100 hours time since the last inspection.
Snap-ring	Within 500 hours time since the last inspection.

For Requirement 2 - Before further flight after the Requirement 1 inspection.

For Requirement 3 - Before further flight after the snap-ring impulse coupling assembly is replaced.

This Amendment becomes effective on 1 September 2005.

Background: This Directive supersedes AD/ELECT/68 which will be cancelled. AD/ELECT/68 required repetitive inspections of riveted and snap-ring impulse coupling assemblies and, if necessary, their replacement when they were worn beyond limits.

This Directive requires a reduced inspection interval for magnetos with riveted impulse coupling assemblies installed on certain Lycoming engine models. The Directive does not lower the inspection interval for magnetos with snap-ring impulse coupling assemblies. The Directive also limits the applicability to certain Lycoming engine models. These actions result from data provided by the manufacturer to the United States Federal Aviation Administration that showed a need to reduce the inspection intervals for riveted-impulse coupling assemblies used on certain Lycoming engine models.

Note 5: Teledyne Continental Ignitions Systems Service Bulletin SB643B dated 6 April 2005 provides the manufacturer recommended periods for inspection/overhaul for TCM magnetos installed on engine types that are not specifically referenced in this Amendment. Inspection periods specified in this Amendment supersede those in SB643B.

The original issue of this Directive was issued to aid in the prevention of failure of the magneto impulse coupling assembly and possible engine failure.

This Amendment continues the requirements of the original issue but corrects Table 1 by limiting the listing to magnetos installed on the specified Lycoming engines and adds a note in the background indicating where the manufacturer's recommended maintenance intervals may be found.

Electrical Equipment

AD/ELECT/75 Amdt 1 (continued)

The original issue of this Directive became effective on 19 July 2005.

David Villiers
Delegate of the Civil Aviation Safety Authority

22 July 2005

[Federal Register Volume 78, Number 95 (Thursday, May 16, 2013)]
[Rules and Regulations]
[Pages 28725-28727]
From the Federal Register Online via the Government Printing Office [www.gpo.gov]
[FR Doc No: 2013-11383]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0221; Directorate Identifier 2010-SW-082-AD; Amendment 39-17454; AD 2013-10-01]

RIN 2120-AA64

Airworthiness Directives; Spectrolab Nightsun XP Searchlight

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for a certain Spectrolab Nightsun XP Searchlight Assembly (searchlight) installed on, but not limited to Agusta S.p.A. (Agusta) Model AB139 and Model AW139 helicopters, Sikorsky Aircraft Corporation (Sikorsky) Model S-92A helicopters, and Eurocopter Deutschland GmbH (Eurocopter) Model EC135 and Model MBB-BK 117 C-2 helicopters. This AD requires, before further flight, inserting information into the Normal Procedures section of the Rotorcraft Flight Manual (RFM), a daily check of the searchlight, and at a specified time interval or if certain conditions are found, modifying any affected searchlight gimbal assembly. This AD was prompted by a report of a searchlight vibrating and an investigation that revealed that the gimbal azimuth top nut was loose. A loose nut, if not detected and corrected, could result in a gap between the rubber edging of the top shroud and the gimbal frame, leading to degradation of pointing accuracy and stability performance of the searchlight and excessive vibration. If the nut were to entirely disengage, the searchlight could disconnect partially or totally from the helicopter, resulting in damage to the helicopter and injury to persons on the ground. The actions of this AD are intended to ensure that the searchlight remains firmly attached to the helicopter.

DATES: This AD is effective June 20, 2013.

The Director of the Federal Register approved the incorporation by reference of certain documents listed in this AD as of June 20, 2013.

ADDRESSES: For service information identified in this AD, contact Spectrolab, Inc. ATTN: Saul Vargas, 12500 Gladstone Ave., Sylmar, CA 91342, telephone (818) 365-4611, fax (818) 361-5102, or on the internet at http://www.spectrolab.com. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, any incorporated-by-reference service information, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (phone: 800-647-5527) is U.S. Department of Transportation, Docket Operations Office, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Matt Fuller, Senior Aviation Safety Engineer, Safety Management Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email matthew.fuller@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

On March 8, 2012, at 77 FR 13993, the Federal Register published our notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 to include an AD that would apply to certain Spectrolab Nightsun XP Searchlights. The NPRM proposed to require before further flight, inserting information into the Normal Procedures section of the RFM, a daily check of the searchlight, and at a specified time interval or if certain conditions are found, modifying any affected searchlight gimbal assembly. An owner/operator (pilot) holding at least a private pilot certificate may perform the visual check and must show compliance by updating the helicopter maintenance records in accordance with 14 CFR 43.9(a)(1)-(4) and 91.417(a)(2)(v). This visual check is authorized because it requires no special tools and can be performed equally well by a pilot or mechanic; this authorization is an exception to our standard maintenance regulations. The proposed requirements were intended to ensure the searchlight remains firmly attached to the helicopter after a report that the searchlight was vibrating.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD No. 2010-0237R2, dated December 14, 2010, to correct an unsafe condition for the Spectrolab Nightsun XP Searchlights installed on the following model helicopters: Agusta AB139 and AW139, Sikorsky S-92A, and Eurocopter MBB-BK 117 C2 and EC 135 series. EASA advises of a reported incident where vibration was associated with the Spectrolab Nightsun XP Searchlight, and states that an investigation revealed the Gimbal Azimuth Top Hex Nut was loose. EASA advises that this condition, if not detected and corrected, could lead to a gap between the rubber edging of the top shroud and the Gimbal frame, resulting in excessive vibration and degradation of pointing accuracy and stability performance. If the nut were to entirely disengage, the Searchlight/Gimbal could disconnect from the helicopter and remain attached solely by the internal cable harness or separate totally, resulting in damage to the helicopter or injury to persons on the ground.

Comments

After our NPRM (77 FR 13993, March 8, 2012) was published, we received comments from one commenter.

Request

One commenter requested that the NPRM (77 FR 13993, March 8, 2012) refer to the most recent amendment to Spectrolab's Nightsun XP Safety and Service Bulletin No. SL 0810-01, Amendment

No. 3, dated September 27, 2010 (Spectrolab service bulletin). We disagree that this change is necessary, because that amendment does not affect the proposed AD's requirements.

The commenter also stated that the NPRM (77 FR 13993, March 8, 2012) refers to EASA AD No. 2010-0183, which had been superseded, and requested that our AD instead refer to the EASA AD revision, EASA AD No. 2010-0237R2, dated December 14, 2010. We agree. Our NPRM referred to EASA AD No. 2010-0237R2 in our Discussion and Additional Information sections.

Finally, the commenter requested that the NPRM (77 FR 13993, March 8, 2012) include a statement that, for Agusta aircraft, compliance with the Agusta Westland Bollettino Tecnico 139-231 would be terminating action for this AD. We disagree. The Agusta service bulletin recommends contacting or sending parts to Spectrolab to meet requirements. Our AD refers to a Spectrolab document to meet the requirements for terminating action. Adding compliance with the Agusta service bulletin as terminating action would be repetitive.

FAA's Determination

We have reviewed the relevant information, considered the comments received, and determined that an unsafe condition exists and is likely to exist or develop on other products of these same type designs and that air safety and the public interest require adopting the AD requirements as proposed.

Differences Between This AD and the EASA AD

The differences between this AD and the EASA AD are:

We require modifying and re-identifying the searchlight within 100 hours TIS, while the EASA AD imposes a calendar date for compliance.

The EASA AD requires contacting the design (change) approval holder if discrepancies are found during the inspection of the searchlight installation, and we do not require this action.

Related Service Information

Spectrolab has issued Nightsun XP Searchlight Safety and Service Bulletin No. SL 0810-01, Amendment No. 2, dated September 24, 2010 (SB), which describes a design change that incorporates two positive locking mechanisms: A torque value and safety wire applied to the nut. These locking mechanisms prevent the gimbal azimuth top nut from loosening and allowing the center shaft to rotate out. Spectrolab has also issued Nightsun XP Searchlight System Kit and Procedure to Incorporate EASA AD 2010-0183 Conformance, 034374 Revision NC, approved September 28, 2010 (Kit and Procedure). Once modified in accordance with the Kit and Procedure, the Nightsun XP gimbals are re-identified with a new nameplate and overlay from a P/N 033295-1 to 033295-3, or P/N 033295-2 to 033295-4.

EASA classified this modification as mandatory and issued EASA AD No. 2010-0237R2, dated December 14, 2010, to ensure the continued airworthiness of helicopters with the affected system installed.

Costs of Compliance

We estimate that this AD affects 6 helicopters of U.S. registry. We also estimate that it will take minimal time to insert the service bulletin into the RFM, and about 3 work hours per helicopter to modify the searchlight. At an average labor rate of $85 per work hour, this amounts to $255 per helicopter. Required parts will cost about $1,000 per helicopter. Based on these figures, we estimate the cost of this AD on U.S. operators to be $1,255 per helicopter, or $7,530 for the fleet.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on helicopters identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a "significant regulatory action" under Executive Order 12866;

(2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);

(3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39–AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2013-10-01 Spectrolab Nightsun XP Searchlight: Amendment 39-17454; Docket No. FAA-2012-0221; Directorate Identifier 2010-SW-082-AD.

(a) Applicability

This AD applies to Spectrolab Nightsun XP Searchlight Assembly Systems with gimbal assembly part number (P/N) 033295-1 or 033295-2, installed on, but not limited to, Agusta S.p.A. Model AB139 and Model AW139 helicopters, Sikorsky Aircraft Corporation Model S-92A helicopters, and Eurocopter Deutschland GmbH Model EC135 and Model MBB-BK 117 C-2 helicopters, certificated in any category. The searchlight assembly system P/Ns and revision level using one of the two affected gimbal assembly P/Ns are listed in Table 1 to Paragraph (a) of this AD.

Table 1 to Paragraph (a)–Affected Systems and P/N

System P/N	Nomenclature	Affected revisions
033338	Nightsun XP Searchlight System	A through D.
033338–3	Nightsun XP Searchlight System	A through D.
033338–4	Nightsun XP Searchlight System	A through D.
033704	IFCO Nightsun XP Searchlight System	A through C.
033704–1	IFCO Nightsun XP Searchlight System	A through C.

(b) Unsafe Condition

This AD defines the unsafe condition as the Searchlight/Gimbal disconnecting from the helicopter and remaining attached solely by the internal cable harness, or separating totally. This condition could result in damage to the helicopter and injury to persons on the ground.

(c) Effective Date

This AD becomes effective June 20, 2013.

(d) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(e) Required Actions

(1) Before further flight, insert a copy of Nightsun XP Searchlight Safety and Service Bulletin No. SL 0810-01, Amendment No. 2, dated September 24, 2010, into the Normal Procedures section of the Rotorcraft Flight Manual.

(2) Before the first flight of each day, visually check the searchlight installation for a gap between the top shroud rubber edging, P/N 033381, and the side covers, P/N 033286, with slight

pressure applied to either side of the searchlight. The edging must remain in physical contact with the side covers when slight pressure is applied to the searchlight.

(3) The actions required by paragraph (e)(2) of this AD may be performed by the owner/operator (pilot) holding at least a Private Pilot Certificate, and must be entered into the helicopter maintenance records in accordance with 14 CFR 43.9(a)(1)-(4) and 91.417(a)(2)(v). The record must be maintained as required by 14 CFR 91.417, 121.380, or 135.439.

(4) If the edging does not remain in physical contact with the side cover when slight pressure is applied to the searchlight in accordance with the requirements of paragraph (e)(2) of this AD, before further flight, with an affected Spectrolab Nightsun XP Searchlight assembly system installed, modify and re-identify the gimbal assembly in accordance with paragraph (e)(5) of this AD.

(5) Within 100 hours time-in-service, modify and re-identify the gimbal assembly in accordance with Nightsun XP Searchlight System Kit and Procedure to Incorporate EASA AD 2010-0183 Conformance, 034374 Revision NC, approved September 28, 2010, steps 1 through 13.

(6) Accomplishing paragraph (e)(5) of this AD is terminating action for the requirements of this AD.

(f) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Matt Fuller, Senior Aviation Safety Engineer, Safety Management Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email matthew.fuller@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

(g) Additional Information

The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2010-0237R2, dated December 14, 2010.

(h) Subject

Joint Aircraft Service Component (JASC) Code: 3340, Exterior lighting.

(i) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the following service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Nightsun XP Searchlight Safety and Service Bulletin No. SL 0810-01, Amendment No. 2, dated September 24, 2010.

(ii) Nightsun XP Searchlight System Kit and Procedure to Incorporate EASA AD 2010-0183 Conformance, 034374 Revision NC, dated September 28, 2010. The date of this document is identified only in the Change Record on page 2 of this service information.

(3) For Spectrolab Nightsun XP Searchlight service information identified in this AD, contact Spectrolab, Inc. ATTN: Saul Vargas, 12500 Gladstone Ave., Sylmar, CA 91342, telephone (818) 365-4611, fax (818) 361-5102, or on the internet at http://www.spectrolab.com.

(4) You may review a copy of the service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

(5) You may also review a copy of this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Fort Worth, Texas, on April 26, 2013.
Kim Smith,
Directorate Manager, Rotorcraft Directorate,
Aircraft Certification Service.